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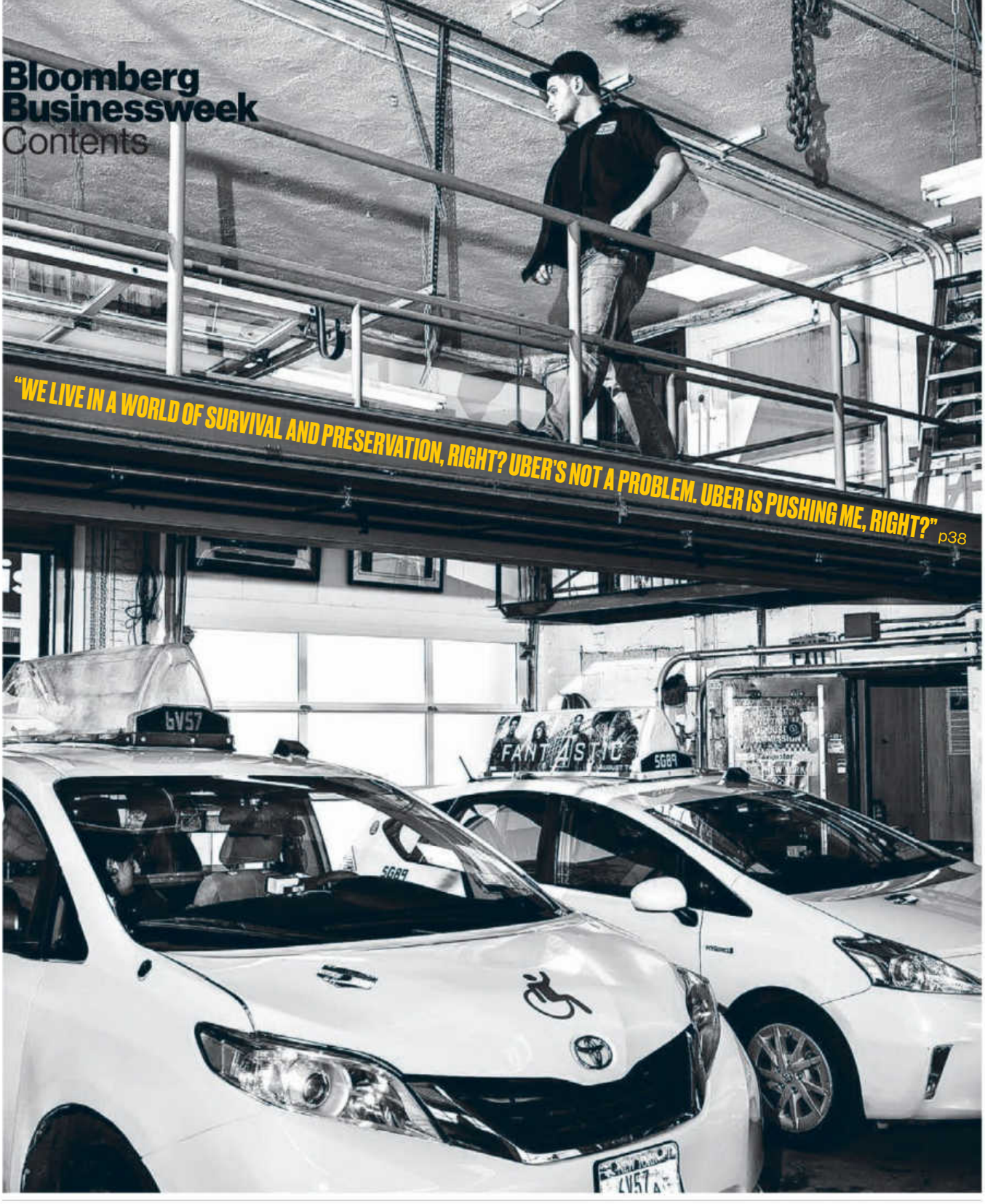
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Cover Trail

How the cover gets made

❶ "Cover story is about the market plunge caused by China."

"But the U.S. has generally recovered, so there's nothing to worry about, right?"

"For now the U.S. is fine, but there are fears of a more sustained global bear market."

"There's an obvious cover solution. A painfully obvious one. One that only the most thoughtless business magazine would resort to. I regret not having studied the markets carefully enough to gain a full comprehension of their volatility and cyclical nature. But there's time to right these wrongs. Give me just three days to do a thorough and intensive study on our global economic landscape. It's only through gaining profound knowledge on a topic that one can visually express an idea more powerfully, succinctly, and originally than anything that came before it. In three days, we will redefine how a 'bear' market is represented forever. The only limit is our intellect and imagination."



❷ "Very imaginative."

"What if there were more bears?"



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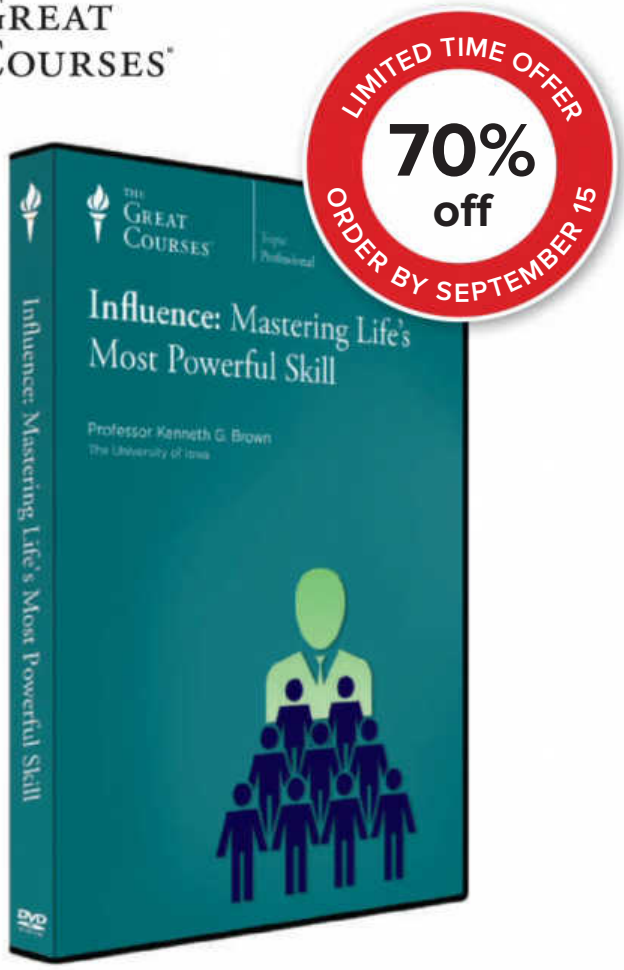
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The Contagion Out of China

By Peter Coy



The U.S. is healthy enough to withstand Black Monday, but it and the rest of the world must learn to watch out for China's well-being

When the Dow Jones industrial average fell almost 1,100 points soon after the opening bell on Aug. 24, the world suddenly seemed like a very small place. A tidal wave of stock selling that began in Shanghai had rolled all the way into lower Manhattan as China's problem became, undeniably, America's. Wall Street panicked. General Electric, JPMorgan Chase, and Home Depot lost a fifth of their value in minutes. For the first half-hour, the Chicago Board Options Exchange couldn't even calculate its Volatility Index, also known as the fear gauge. Markets from Asia to Europe preceded the U.S. downward. "There's no rational choice anymore, no rational reaction," Michael Woischneck, a senior equities manager for Lampe Asset Management in Düsseldorf, Germany, told Bloomberg.

U.S. markets partially rebounded that day and the following ones as investors realized that the U.S. economy isn't on the precipice of a recession. But that doesn't take away from the importance of what was quickly dubbed Black Monday. China, which makes the world's steel, electronics, and bobblehead dolls, has now demonstrated it can make a pretty serious market crisis, too.

China accounted for almost 40 percent of global growth last year. Its appetite for raw materials has undergirded economies from Australia to Brazil to South Africa, and its production capabilities have lowered prices of industrial machines and consumer goods everywhere money changes hands.

But it's also kind of a mess.

PHOTO ILLUSTRATION BY 731; PHOTOS: XINHUA/REDUX (1); GETTY IMAGES (2)

Fueled by real estate and shadow banking, China's debt quadrupled from 2007 to 2014, according to a McKinsey analysis. Its economic growth is slowing, pollution is awful, and a hawkish foreign policy is alienating neighbors. Investors were willing to ignore all that because of their faith in the technocratic excellence of China's economic managers, but that faith has been destroyed by this year's bungling of the stock and foreign exchange markets. "The main aims of China's leader Xi Jinping are political and geostrategic, while his economic goals are contradictory," Arthur Kroeber, founding partner and head of research at Gavekal Dragonomics, a Beijing research firm, wrote to clients on Aug. 25.

The way this meltdown occurred—first slowly and locally, then rapidly and globally—says a lot about the nature of the world economy and markets today. Many investors don't trust stock valuations, which they think have been inflated by easy money from the central banks. The tripling of U.S. stock prices since their 2009 bottom had a lot of them ready to sell at the first sign of trouble. "We believe that this has been the most doubted, second-guessed, and frankly hated stock market rally in history," Brian Belski, chief investment strategist at BMO Capital Markets, wrote to clients the day of the tumble. When trouble emerged in the form of China, trend-following trading strategies kicked in, amplifying the plunge. Potential bargain hunters stood aside. "Prudence dictates waiting for a technical sign that the momentum has exhausted itself," advised Marc Chandler, head of currency strategy at Brown Brothers Harriman.

In a genuinely globalized economy, excesses and imbalances in one corner of the world inevitably affect other countries. (The last example: the U.S. subprime mortgage bubble.) China is home to some of the biggest excesses, with vast overinvestment in everything from chemicals to apartments. In many ways, President Xi and Premier Li Keqiang were doing the right thing—trying to push the economy away from its addiction to exports, manufacturing, and construction and toward producing goods and services for consumers at home. They also vowed to give the free market a "decisive" role in setting prices and interest rates. But they couldn't reconcile that with the Communist impulse to control the commanding heights of the economy and tamp down the natural volatility of capitalism.

The government's first mistake was to encourage ordinary Chinese to invest in the casino-like Chinese stock market, thus pinning its prestige on the market's rise. The Shanghai Composite index rose 152 percent this year through June 12. When the speculative frenzy finally cooled, Premier Li and Vice Premier Ma Kai led the effort to stop prices from falling, banning sales by major shareholders, stopping initial public offerings, and using government funds to buy stocks. It worked for a while, but eventually the markets succumbed to investors' fearfulness.

The government didn't do any better in managing the value of its currency, the yuan. In a bid for global financial leadership, Xi has said he wants the redback to be a reserve currency on par with the dollar, euro, yen, and pound. A market-set exchange rate is a necessary step in that direction. But when China devalued the yuan on Aug. 11 and said it would rely more on supply and demand to determine its rate, traders fairly or not suspected that Xi and his team actually wanted a cheaper yuan to boost Chinese exports—which had fallen 8.3 percent in July from a year earlier. Traders pushed the currency down so much, China was forced to reverse course and buy up yuan by cracking open its hoard of foreign currencies.

Global investors reacted to China's clumsiness first with amusement, then with fear. New York's Black Monday came on the heels of an 8 percent same-day drop in Shanghai, which occurred when Chinese investors sold after authorities didn't do as much as they'd hoped they would to prop up the market. "This is a real disaster, and it seems nothing can stop it," said Chen Gang, Shanghai-based chief investment officer at Heqitongyi Asset Management. A day later the government did come to the rescue, cutting the one-year lending rate by a quarter of a percentage point and freeing up bank funds by lowering the fraction of deposits that banks are required to hold in reserves. Chinese issues kept falling through Aug. 26, though, bringing their weekly decline to 23 percent.

The whole drawn-out episode may have weakened Xi, who has been on course to become China's strongest leader since Mao. On Aug. 20, state media carried an article saying the leadership's push for reforms—such as fighting corruption and shrinking state-owned enterprises—had come up against "unimaginably" fierce resistance.

The overdue decline in the fairly small, underdeveloped Chinese stock market caused such a ruckus because it awoke larger fears. It "crystallized something the market ought to have been aware of, which is that there is a very, very major slowdown occurring in China," says Adair Lord Turner, chairman of the Institute for New Economic Thinking and past chairman of the U.K. Financial Services Authority. "Every single major global recession in the last 50 years has started in the United States," Ruchir Sharma, head of emerging markets for Morgan Stanley Investment Management, said on Bloomberg Television in July. "The next global recession will be made in China."

The turmoil has parallels with the 1997 Asian meltdown, including expectations of a Fed rate hike

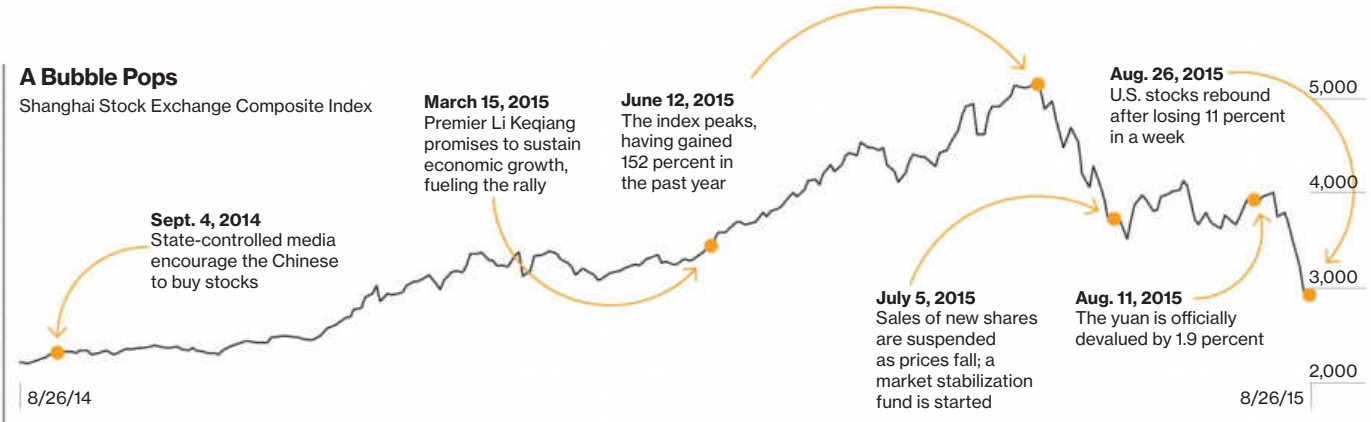
Perhaps so. Still, the hair-on-fire reaction of Aug. 24 was a bit much. Markets behaved as they usually do, which is to underreact to new developments for a long time—and then abruptly overreact. "It feels like a severe episode of market hypochondria," Erik Nielsen, chief economist for UniCredit in London, wrote to clients. "Every bit of news is seen as disaster-in-progress."

How much we should worry about China has a lot to do with the definition of "we." Most at risk are countries such as Turkey and South Africa that have heavy debt denominated in foreign currencies like the dollar, persistent inflation, and economies prone to trade deficits. When investors lose confidence in emerging markets, countries like these are always the first to suffer. Although less connected to China, Europe is at some risk, because its economy is barely growing, making it vulnerable to even a smallish shock. Asian nations such as South Korea and Singapore that sell a lot to China have obvious exposure, but they've amassed huge foreign reserves that protect them against speculation. They can cut interest rates to stimulate growth and counteract the drag from China without concern that investors will trash their currencies.

With its huge domestic market, America is always more insulated than other nations from the ups and downs of global trade. Exports to China amount to only 1 percent of its gross domestic product. And crude oil at about $40 a barrel—thanks in part to weakening Chinese demand—will lower the price of gasoline, giving U.S. consumers more money to pay down debt and eventually increase spending on other things.

It helps that the U.S. economy was on a slow but steady growth path to begin with, adding more than 200,000 jobs a month on average. New-home sales rose better than 5 percent in July, the most this year. Equipment orders in July exceeded expectations. Auto sales have rebounded to their highest level since before the financial crisis. Consumer and corporate balance sheets are in excellent condition.

The scenario that gets veteran investors nervous is a repeat of the Asian Contagion of 1997 and '98. Then as now, ▶



DATA: COMPILED BY BLOOMBERG

◀ the Federal Reserve was poised to raise interest rates, oil prices were falling, and investors were losing confidence in certain emerging markets that had gone on a debt-fueled investment binge. Deflation loomed, and money was flowing out of emerging markets at an alarming pace. Fed Chairman Alan Greenspan worried about how long the U.S. could remain an "oasis of prosperity."

The U.S. played a role in causing the Asian Contagion, because investors withdrew money from emerging markets and put it in the U.S. to take advantage of anticipated interest rate increases. Likewise today, the Fed is preparing to raise short-term interest rates off the floor of near-zero, where they've been napping since the end of 2008. Higher rates in the U.S. will suck in money from around the world. That, in turn, could further drive up borrowing costs in vulnerable countries such as Brazil, which the money is leaving. It's the fear of this outcome that has investors suddenly obsessing over declines in obscure currencies like the Vietnamese dong and the Kazakhstani tenge.



The difference between now and then is that a lot of developing nations and global markets have braced themselves against the risks of a currency crisis, making a full-scale Asian Contagion unlikely. Morgan Stanley economists Manoj Pradhan and Patryk Drozdzik in London told clients on Aug. 24: "In a nutshell, no one can or should rule out a crisis, but we believe that the risk has fallen from a few years ago."

The U.S. has even less reason to worry about contagion from Asia, since it wasn't harmed by the original episode, says David Rosenberg, chief economist and strategist at Gluskin Sheff, a Toronto-based wealth manager. Over the period of the last crisis, he says, the Fed cut rates instead of raising them, stock prices rose, unemployment fell, and economic growth averaged more than 4 percent a year.

Still, the August selloff is bound to get the attention of Fed Chair Janet Yellen and her colleagues when the Federal Open Market Committee meets on Sept. 16 and 17 to decide whether to raise rates. Because of the latest turmoil, markets are betting the Fed will wait until at least December. That's probably right: The Fed has cited "international developments" as a factor to watch in each meeting since January, says Lindsey Piegza, chief economist of Stifel Nicolaus, a Chicago-based investment firm. For the Fed, the biggest concern is that in a turbulent world, the dollar will become even more of a haven, driving up the exchange rate and making U.S. goods and services less competitive in global markets. Although the dollar has sagged recently against the euro and yen, it rose 13 percent this year through July, according to the Fed's index of a broad set of trading partners' currencies adjusted for inflation.

Financial markets depend on good information. When it's lacking, investors flail. They assume the best when they're bullish and the worst when fear gets the best of them. That helps explain the eruption over China, a nation that remains opaque despite having the world's second-biggest economy. Facts as basic as its GDP are hard to pin down: Officially it grew at 7 percent in the first and second quarters—suspiciously, precisely the rate Li predicted for 2015. Some outsiders put growth at closer to 5 percent based on data such as electricity consumption and rail cargo. The official unemployment rate is even less plausible. Despite all the changes China's gone through, it hasn't left a narrow range of 4 percent to 4.3 percent since late 2002.



Financial markets don't mesh well with command-and-control economies, either. Traders react instantly to new information, constantly updating prices on the latest intel. Viewed up close, the process of adjustment can look choppy to China's leaders. They try to keep a lid on volatility the opposite way—by fixing prices and rates—but all they manage to do is bottle it for a time. "The first marker of a fragile state is a concentrated decision-making system," wrote Nassim Nicholas Taleb and Gregory Treverton in the January-February issue of *Foreign Affairs*.

China still has a lot of strengths, including plenty more room to cut interest rates if needed and a war chest of about $3.6 trillion in foreign exchange. (Although it's spending dollars fast to support the yuan.) What it lacks for the first time in awhile are trusting investors. Some are angry enough to have taken matters into their own hands. On Aug. 22 a group of investors seized the head of the Fanya Metal Exchange, threw him into a car, and drove him to a Shanghai police station, alleging that Fanya had stopped making payments on its heavily advertised financial products.

These are strange times. Barack Obama has spent his entire presidency with short-term interest rates of essentially zero percent. The transition back to normal, when it happens, might be wrenching at home and abroad. For the U.S., the nightmare scenario is less financial than political; no one wants a China whose leaders try to cover up economic woes by stirring patriotic fervor with confrontations in, say, the South China Sea or East China Sea. (One Putin is enough, thanks.) An embarrassed leadership could be even harder to deal with than a boastful one. Bashing China is a popular American sport, especially on the campaign trail, but gloating over the made-in-China meltdown is an antiquated response. When China sneezes, the world just might catch a cold. B

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How Not to Replace Obamacare

GOP candidates have alternatives, but none are improvements



Trying to repeal Obamacare has long been a popular, if futile, Republican pastime. Now replacing Obamacare is catching on, at least among Republican presidential candidates. This would count as progress, except that none of their proposals meets the definition of replacement.

The point of health-care reform is, or should be, relatively straightforward: providing the best possible health insurance to the largest possible number of people at the lowest possible cost. How do the various proposals fare under these criteria?

Wisconsin Governor Scott Walker says 6 million more people would have private health insurance under his plan than under Obamacare. How many would lose government-sponsored coverage, however, is left for voters to guess. Florida Senator Marco Rubio's outline doesn't mention the effect on insurance levels at all. It's unclear how any plan that rolls back the expansion of Medicaid, as both proposals do, could insure as many people as Obamacare does through other means.

It also seems likely that the quality of that insurance, measured by the services covered and the share of costs borne by beneficiaries, would be lower, considering Rubio and Walker would lift Obamacare's provisions for essential benefits. Universal health insurance isn't achieved by giving more people access to insurance plans that don't cover their basic medical needs at an out-of-pocket cost they can afford to pay. There are certainly ways to streamline and improve insurance market regulations. Operating without rules is no solution. Nor is leaving coverage requirements to the states and hoping for the best.

As for the other candidates, Louisiana Governor Bobby Jindal has a plan that includes replacing the tax exclusion for employer-sponsored plans with a standard tax deduction, but that's unlikely to maintain Obamacare levels of coverage. Ohio Governor John Kasich says everyone should have health insurance, and he supports the expansion of Medicaid, but he dislikes mandates. Donald Trump says only that he would replace Obamacare with "something terrific," and it would involve hospitals.

Finally, there's the question of cost. The Congressional Budget Office has repeatedly said that repealing Obamacare would add to the deficit, because the law's tax increases and cuts in Medicare raise or save more money than its new benefits cost. So to qualify as an improvement, any alternative needs to reduce the deficit more than Obamacare does (about $137 billion over 10 years) while covering the same number of people.

There's nothing precious about Obamacare. It's a massive and complicated piece of legislation whose shortcomings are significant, and it requires more work. If a candidate can devise a better way to provide the same level of coverage to the same number of Americans at equal or lower cost, in a package that is likely to pass Congress and survive court challenges, great. Something that accomplishes less wouldn't be progress.

The Help That Ukraine Needs Now

Economic woes increase as Russia and the rebels are on the move

Since mid-August, Russian-backed rebels in eastern Ukraine have moved heavy weapons to the front, ending the relative peace that prevailed since the Minsk accords earlier this year. The goal for the moment seems to be to impoverish and destabilize Ukraine so it will ultimately have to submit to Russian influence. With winter approaching, the Kremlin will soon have more ways to apply pressure; rebel shelling is likely to be just the start.

The European Union recognized that Russia and the rebels it supports never embraced the cease-fire agreement, and over the summer it renewed its sanctions against Russia. But Ukraine needs greater economic support to survive the onslaught. Its economy shrank more than 14 percent in the second quarter; its currency, the hryvnia, has collapsed, together with investment and consumption; and inflation has soared to 55 percent.

One idea is for Europe's central banks to jointly put together a currency swap facility that Ukraine's central bank could use to defend the hryvnia if need be. A verbal commitment to such a strategy alone might help stabilize the currency and make it easier for the government to lift capital controls.

It's also in the EU's interest to find hard cash for Ukraine and technical support to plug the holes in its finances—holes that get bigger the more Russian-backed rebels attack. Most pressing is Ukraine's need to cover the $3 billion it owes Russia. The government is also looking to borrow $1 billion to pay for natural gas for the winter, to undercut the Kremlin's ability to use gas supplies as a weapon. The European Bank for Reconstruction and Development is considering a loan of $300 million. Other lenders are needed to step in.

Earlier this year, the financier George Soros said Europe should produce a new $50 billion package for Ukraine. His figure was arbitrary, but his reasoning was on the money: A clear financial commitment to Ukraine would give the EU greater leverage to hasten reform, reassure Ukrainians that there is reason to endure the pain it involves, and convince Vladimir Putin that his strategy—costly to Russia as well as Ukraine—can't succeed. Ⓑ

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"Diligence is the left hand of making money; Rural Taobao is the right hand of saving money"

China's Hunt for Growth In the Countryside

▶ Alibaba, the e-commerce giant, is turning to the immense interior in search of fresh profits

▶ "In this process, we are nurturing the culture and habit of shopping online"

Tuguan village in remote Yunnan province feels about as far from the turbulence of modern China as you can get. A one-lane, bumpy dirt road runs through it, past whitewashed farmhouses, most with a painting of flowers and bamboo on the outside wall and traditional sweeping rooftop eaves. Tuguan is home to some 170 families of the Bai ethnic minority, who grow table grapes and tamarinds. During steamy afternoons, most residents loll in the shade or nap in their house to escape the heat.

But on a hot day in June, one spot in Tuguan is bustling. At the local convenience store, a dozen sun-tanned villagers are clustered around a new Lenovo computer and wall-mounted flatscreen Skyworth monitor, checking out the latest online deals on mobile phones, toothpaste, pesticide dispensers, and more, all for sale on **Alibaba Group**'s new rural e-commerce platform.

Zhang Yibin, a lanky, chain-smoking grape farmer with two gold teeth, has bought a fan, a pesticide dispenser, and a 13,600 yuan ($2,122) Zongshen three-wheel motorcycle online in the less than two months since Alibaba opened a Taobao rural service center in town. (Taobao is Alibaba's consumer e-commerce business.) "Online, the price is cheaper, the choice is better, and it is far more convenient," Zhang says, noting he didn't have to make the half-day trip to the dealer to get his three-wheeler, which he uses to move irrigation pipes and haul fertilizer. He says he wants to sell his grapes online "to everyone in China."

China's e-commerce market had revenue of 2.79 trillion yuan in 2014, an increase of 49.7 percent from the previous year. But in the global market rout on Aug. 24, Alibaba's stock fell 3.5 percent in New York, for the first time dropping below its initial public offering price of $68. The company's slowing growth and China's decelerating economy have made investors anxious.

Even with the economic slowdown and stock market collapse, e-commerce sales grew 37.7 percent in the first seven months of 2015. In hopes of keeping up the momentum of online selling, Alibaba and its rivals are starting to look beyond the market of young, well-educated urbanites and head for the countryside, where about half of all Chinese hail from. "The developed cities can't keep delivering



PHOTOGRAPHS BY DUSTIN SHUM FOR BLOOMBERG BUSINESSWEEK

The fractious state election that India's Modi must win 14

The yuan falls, and others come tumbling after 14

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Turkey's become one hot mess 16



The distribution center

double-digit growth rates forever–it is just the law of Mother Nature," says John Choi, head of Greater China Internet research at Daiwa Capital Markets in Hong Kong.

Last October, Alibaba announced plans to invest 10 billion yuan in logistics, hardware, and training to push its e-commerce model into 100,000 villages in the next three to five years. It's opening warehouses and working with delivery companies and local officials.

At the heart of Alibaba's strategy is the Taobao rural service center, where villagers can become comfortable buying goods and paying mobile phone and utility bills online, and pick up items they bought on Taobao. Alibaba provides computers and monitors, ensures timely delivery of purchases, and trains villagers to serve as its representatives in the centers, which are often in convenience stores. "Alibaba has wanted to expand in rural regions for a long time," says Yu Xianghai, senior director of rural e-commerce initiatives at Alibaba. "In this process, we are nurturing the culture and habit of shopping online."

The plan is to start by selling popular items such as washing machines, televisions, and apparel while gradually developing a digital platform for farmers to sell vegetables and fruits to the cities. "We thought, Would it be possible to first sell to them, and so solve the issue of talent and infrastructure? Then when the timing is ripe and the infrastructure is built, we can try to solve the other end of the problem," Yu says.

About three-quarters of Chinese in first-tier cities such as Beijing, Shanghai, Guangzhou, and Chongqing are already online, but in rural areas it's 19 percent, according to a survey by McKinsey Digital, which helps companies shape their digital strategies. Even so, rural Chinese have an affinity for e-commerce. Close to two-thirds of rural Chinese who do use the Internet say they have purchased items online; that compares with 72 percent of users in the cities. "It's not just coastal, first-tier cities where things are happening, as one might expect," says Hong Kong-based Alan Lau, Asia Pacific head at McKinsey Digital.

Until now, shopping in rural China has been characterized by limited choice, inflated prices, and shoddy quality, says Jiang Hongyu, director of rural development at Alibaba rival **JD.com**. With historically lower incomes, dispersed populations, and poor logistics, the hinterlands haven't attracted many brick-and-mortar stores.

More Internet-savvy migrant workers are returning home. "We are finding that rural consumers have really high demand for quality products today," Jiang says. JD.com plans to open more than 500 rural service centers by yearend.

The companies' rural forays fit in with government policy. Beijing wants to boost household consumption as a share of gross domestic product from slightly more than one-third today; in the U.S., it's about 70 percent. China's ▶



The orders

The Taobao center in Binchuan County moves goods to smaller villages



The packing

◀ government will "support migrant workers, college graduates, and army veterans who wish to return to their rural hometowns to start new businesses" and "encourage e-commerce in rural areas" the Xinhua News Agency reported on June 10 after a meeting on rural entrepreneurship that Premier Li Keqiang presided over.

"Our farmers have already started to become rich and want to buy products," says Xu Dongzhu, director of the agriculture department for the county where Tuguan is located. Xu has appointed three of his staff to help Alibaba. "Later, farm produce will be sold on the Alibaba platform, and that will help increase the income of farmers, bringing more prosperity to all of us," he says. —*Dexter Roberts and Lulu Chen*

The bottom line Alibaba is spending 10 billion yuan building a network of e-commerce centers in rural China.

Violence

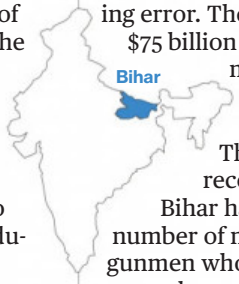
Modi Fights for Victory In a Lawless State

- Bihar is a must-win state for the Indian prime minister
- "Whoever builds a bridge, I will vote for him for the next 20 to 25 years"

A bullet tore through policeman Anil Kumar's chest during a gunfight last year. He might have lived, but the makeshift bridge from the island where he worked in India's poverty-stricken state of Bihar was closed. By the time his bleeding body had been ferried across the Ganges from Raghopur Island and taken to a hospital in Patna, the state capital, it was too late. "Maybe an hour would have saved his life," says Sub Inspector Randhir Kumar Bhatt, Kumar's replacement, and one of just a dozen officers on the island.

The murder is emblematic of Bihar, where more than 100 million people live on an average of less than $2 a day. The lawlessness, poverty, and decrepit infrastructure that cost Kumar his life now also threaten to derail Prime Minister Narendra Modi's plans to reform India.

Starting as early as October, Modi's party will face the first in a series of state elections. There are six that he needs to win by 2017 if he's going to deliver on his promise to transform India's economy.



Bihar will be the first of those states to hold elections. Winning there is seen as crucial to Modi's momentum. If Modi's Hindu-nationalist Bharatiya Janata Party wins there and in at least five other states, the BJP will have a majority in the upper house of parliament and finally be able to pass legislation.

When Modi swept into office last year, investors poured money into India in the hope he would unleash the potential of the world's second-most-populous nation. Voters gave Modi control of the lower house, but the ousted Congress party and its allies, who vehemently oppose Modi, kept control of the upper house, where members are selected by state assemblies. Since then, Modi's proposals to make land easier to acquire for commercial projects and to standardize tax rates have been stonewalled by the upper chamber; measures to overhaul labor laws still sit on the shelf, not even introduced. India's chief election commissioner calls the coming contest in Bihar "the mother of all elections."

Landlocked Bihar is on a vast plain bordering Nepal to the north and bisected by the Ganges, India's holiest river. The state is home to about 1 in 12 Indians. Despite recent economic growth, Bihar still has India's lowest literacy rate—61.8 percent as of the 2011 census—and the country's highest proportion of severely malnourished children.

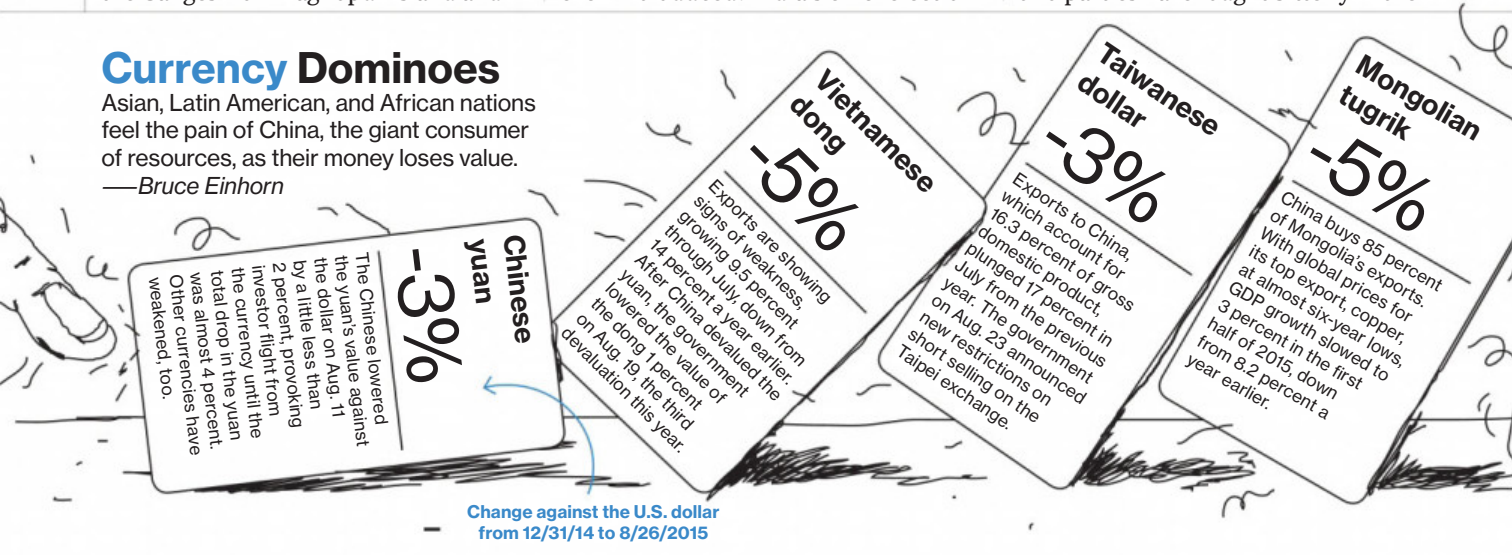
The percentage of direct foreign investment in India that goes to the state is so small it looks like a rounding error. The central bank records $75 billion of foreign direct investment flowing through its Mumbai regional office from 2000 to May 2015. The bank's office in Patna records $59 million.

Bihar has the second-highest number of murders in India. The four gunmen who shot Officer Kumar were angry about a business dispute. They also killed their business rival, who was standing beside the policeman.

To win an election in this dangerous, dysfunctional state, Modi and the BJP have to overcome a mindset molded by the caste system. "Caste is the reality of Indian society, and Bihar is no different from any other state," Nitish Kumar, the state's current leader, tweeted in August. Once a BJP ally but now an opponent, Kumar (no relation to the murdered policeman) leads the Janata Dal (United) party, the dominant faction in the state's ruling coalition. Janata Dal counts lower-caste voters as its power base and is aligned in this election with another group, the Rashtriya Janata Dal (RJD), which is supported by a mix of the state's lowest castes. The two parties have fought bitterly in the

Currency Dominoes

Asian, Latin American, and African nations feel the pain of China, the giant consumer of resources, as their money loses value. —*Bruce Einhorn*



past but are setting aside their differences to defeat the BJP.

Bihar became infamous for what critics called the jungle raj, or rule of the jungle, under power broker Lalu Prasad Yadav, head of the RJD party. He ran the state for seven years before handing power to his wife in 1997 as chief minister. He left office after corruption charges for which he was later convicted. Yadav, who was released from jail on bail after his conviction, has maintained his innocence. He didn't reply to requests for comment.

During the campaign, BJP officials in Bihar say they will focus on economic development and sidestep their rivals' caste-based politics. A July opinion poll showed Modi's coalition trailing by 11 points for the state vote. The prime minister is trying to engineer a late surge: In August he announced a plan to spend $19 billion on Bihari development projects, including roads, schools, and power plants.

Modi's hopes may be lifted by voters such as Nishibi Rai, a Raghopur farmer who says he's tired of politicians' broken promises—including the failure to build a permanent bridge to the mainland. "Whoever builds a bridge, I will vote for him for the next 20 to 25 years," he says, standing bare-chested by his cow. Rai, who is from a low caste, says he's voted for Yadav's party all his life.

Navin Kumar Arya, a Janata Dal official, says his party has already made life better in Bihar: "Work will begin very soon" on an $800 million bridge and road that would include a connection between Raghopur and Patna. The Asian Development Bank, though, hasn't yet approved funding.

"The BJP can't just walk in here," says Udai Narayan Rai, a Yadav ally. Sipping tea on the porch of his two-story white bungalow, one of the largest on Raghopur, Rai says he's frustrated along with everyone else that conditions aren't better, but he adds that residents should be grateful to Yadav for road improvements and other accomplishments. As a group of men, women, and children pull weeds in the sun in farm fields in front of the house, Rai says people know their place and will vote as they always have, "based on caste." —*Tom Lasseter and Kartikay Mehrotra*

> **"Caste is the reality of Indian society, and Bihar is no different from any other state."** —*Chief Minister Nitish Kumar*

The bottom line Prime Minister Modi is pledging $19 billion in investment to win votes in the state of Bihar.

Energy

Where's That Cheap Oil Windfall?

- Lower petroleum prices have yet to provide the expected boost
- The refiners "don't have to give it away at the pump all at once"

During a July 24 earnings call, **Visa** Chief Financial Officer Vasant Prabhu said gasoline prices have had a "significant negative impact" on business. **MasterCard** says cheaper gas took 2 percentage points off the growth in the value of its overall second-quarter transactions.

When the price of crude oil started dropping a year ago, credit card companies were thought to be among the winners. Consumers and businesses would soon be buying ever-cheaper gasoline made with ever-cheaper crude. The effect would be like a tax cut. The Department of Energy calculated in April that the average U.S. household would save about $700 on gasoline this year compared with 2014. Visa and MasterCard figured consumers would eventually spend that extra cash.

But so far the savings from cheaper gasoline haven't shown up in other consumer spending. So Visa and MasterCard, which collect a tiny percentage of every transaction made with their cards, are stuck with consumers who are using their plastic to buy cheaper gas but not spending the extra money elsewhere. It doesn't add up to profits for the companies.

In an Aug. 19 research note, Goldman Sachs acknowledged it had overestimated how quickly cheap oil and higher wages would increase personal consumption, which has grown 2.3 percent over the past year instead of the 4 percent the bank predicted in March. Initially, Americans put into savings what they didn't spend at the pump. The share of income that households save is back to 4.8 percent, right where it was in June 2014 before climbing to 5.4 percent earlier this year. Goldman says the problem now is that incomes haven't been rising as fast as expected. Lower oil prices haven't led to a significant increase in consumption in any of the major economies, says Andrew Kenningham, senior international economist at Capital Economics.

The rule of thumb has been that a sustained 50 percent drop in the price of crude lifts U.S. economic growth by about 1 percentage point. In April a trio of research economists at the Federal Reserve Bank of Dallas surmised that principle "should probably be halved" to about half of a percentage point. ▶

Turkmenian manat
-19%
This Central Asian producer of oil and gas started the year with a 19 percent devaluation of its currency. China had agreed to double imports of natural gas from Turkmenistan by 2020, but as China's economy slows, demand is faltering.

South African rand
-12%
One-tenth of South Africa's exports go to China, the biggest buyer of the country's commodities. An unemployment rate of 25 percent may go higher as mining companies plan job cuts. On Aug. 21 the rand was at its lowest level on record.

Angolan kwanza
-18%
Angola is Africa's No. 2 oil producer and depends on crude sales abroad for dollars. Foreign exchange reserves are down 21 percent in the past 12 months.

Nigerian naira
-8%
Africa's biggest oil producer, Nigeria in February imposed trading curbs that kept the value of the naira from plummeting even as crude prices plunged. The central bank vows to fight speculators betting the overvalued currency will fall.

Brazilian real
-26%
The real has taken a hit from political instability, with corruption allegations threatening President Dilma Rousseff. Brazil is a major exporter of iron ore to China, so that country's woes aggravate Brazil's economic problems.

Colombian peso
-27%
With crude trading at about $40 a barrel, the peso is at a record low. Inflation has topped 4 percent for six months, but the central bank has not raised rates, fearing an economic slowdown.



Now that the U.S. is producing about two-thirds of the oil it consumes, low prices for crude are more of a drag than in the past—particularly as the industry adjusts to the global collapse of petroleum prices. "It has played out like a double-edged sword," says David Rosenberg, chief economist at Gluskin Sheff. A decline in energy-related investment such as drilling equipment subtracted about half of a percentage point from U.S. growth during the first half of 2015, according to a Goldman research note from July. From December through June, energy companies cut about 70,000 jobs. Moody's Analytics chief economist Mark Zandi thinks the industry may lose another 70,000 workers before things bottom out in February or March. "This is going to be more painful than I thought," he says.

It's not that cheap gasoline isn't a positive. Demand for it has risen 4.4 percent year to date. A gallon of regular gasoline has averaged $2.50 so far this year, a dollar cheaper than a year ago. In terms of total miles driven, this summer driving season is finally seeing monthly totals surpass the prerecession peak in 2007. Refiners are going all-out to keep up. Through July the roughly 140 refineries in the U.S. were using 96 percent of their total combined capacity.

Not all Americans, however, have been enjoying lower gas prices. A handful of refinery outages through the year disrupted the flow of gasoline and actually raised prices in parts of the country. In February an explosion at an **ExxonMobil** refinery outside Los Angeles injured four people and led to a $566,000 fine for safety and health violations. It also pinched the West Coast's supply of gasoline and contributed to several price spikes in California. In mid-July, even as oil was 50 percent cheaper than it was a year earlier, the average price of a gallon of regular gasoline across California was about $3.90, only a dime cheaper than it was in July 2014.

Refining outages have also raised prices in the Midwest, where the region's largest refinery, owned by **BP**, cut back sharply because of leaks in its biggest crude processing unit found in July. BP's refinery in Whiting, Ind., about 20 miles southeast of Chicago, accounts for 11 percent of all the fuel produced in the Midwest. The episode led to high prices at gas stations from southern Illinois up through Iowa and Minnesota. On Aug. 25, BP said the refinery is up and running.

Refiners without problems have been able to take advantage of high demand for gasoline. Despite the recent stock market selloff, a handful of big refining companies in the U.S. has enjoyed strong profits this year. Shares of **Valero Energy** and **Tesoro**, two of the biggest refining companies in the U.S., are up 19 percent and 23 percent, respectively, year to date. "The refiners have the upper hand," says Fadel Gheit, an energy analyst at Oppenheimer. "They don't have to give it away at the pump all at once. They can drag [gasoline prices] down at a much slower pace."

When the kinks in the refinery network are worked out, even more gasoline may be produced, triggering a rapid and uniform price drop. "I think we may see $2 a gallon across a wide swath of the country by late 2015," says Denton Cinquegrana, chief oil analyst at Oil Price Information Service.

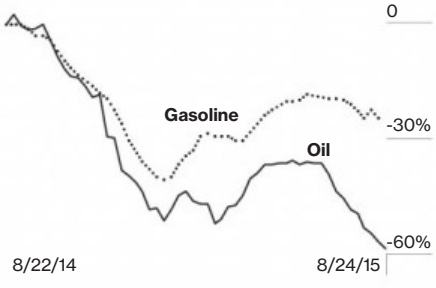
Until then, the best place to find the cheap oil dividend may be in housing. Inexpensive gas has helped millions of Americans pay down debt. Consumer loan and mortgage payments as a share of after-tax income are at their lowest since at least 1980. The levels may have spurred recent housing construction and mortgage applications. —*Matthew Philips*

The bottom line U.S. oil refineries have profited from processing cheap oil and passing only some of the savings to consumers.

Instead of buying things, people are cutting debt

Cheaper Oil Was Supposed to Spur Consumer Spending, But...

The change in prices of gasoline since August hasn't matched crude's drop.



The forecast for 2015 household spending growth has dipped since the beginning of the year.



FORECAST BASED ON A SURVEY OF ECONOMISTS BY BLOOMBERG; DATA: COMPILED BY BLOOMBERG

Turkey

Erdogan Is Fighting Wars on Three Fronts

- Can he win against the Kurds, Islamic State, and the economy?
- The country "has entered uncharted waters"

For a few years, Recep Tayyip Erdogan appeared unassailable. As prime minister and now as president, he kept Turkey out of the turmoil afflicting its neighbors and reigned over what seemed to be an unstoppable economy.

That era is over. Turkey's military has struck at targets in Syria and Iraq—at a new enemy, Islamic State, and an old foe, Kurdish militants, as the region's violence has seeped over the border into Turkey's southeast. At the same time, the economy has finally succumbed to politics and global forces. And inconclusive elections in June have given investors, who were already exiting emerging markets, more reasons to avoid Turkey.

The armed conflict has exposed Turkey's mixed motives. The U.S. hailed Turkey's decision in July to begin air strikes against Islamic State. Yet that assault was almost immediately overshadowed by Turkey's parallel operations against Kurdish militants in Iraq, whom the U.S. counts as allies against Islamic State. Turkey sees the Kurds' growing role in the region as stoking statehood ambitions among its own Kurdish population.

The fighting comes at a delicate moment in Turkish politics. After his party failed to form a coalition government with any of its rivals, Erdogan announced fresh elections for Nov. 1. Opinion polls suggest another hung parliament is likely. The country is being run by a caretaker government.

Turkey has "entered uncharted

CAGDAS ERDOGAN/AP PHOTO



Protesting Turkey's operations against Kurdish militants on Aug. 19 in Istanbul

waters, both economically and politically," wrote Wolf-Fabian Hungerland, an economist in Hamburg at Berenberg Bank, in an e-mail. "The global liquidity situation is changing, making foreign capital scarcer, and domestic politics are edging toward paralysis and instability."

Minister of Finance Mehmet Simsek, a member of the AK Party, warned on television that the instability is deterring investment and putting Erdogan's and Turkey's accomplishments over the past dozen years "at risk."

National elections in June saw the pro-Kurdish party, the HDP, win an historic 13 percent of the vote. Those gains helped deprive the AKP, which Erdogan co-founded, of an outright majority for the first time since 2002. The hope was that a new election would lead to a stronger presidency. A survey by Metropoll Arastirma says that the AKP would fail to regain its parliamentary majority if the election were held now.

The investment-grade ratings Turkey has received from Moody's and Fitch Ratings for more than two years are at risk. Moody's has given Turkey a negative outlook. Losing an investment-grade rating would worsen the selloff in Turkish stocks and bonds, which already totals a record $5 billion this year. Turkey's 10-year bond, yielding a high 5.1 percent, is trading like junk. The yield on two-year government bonds has risen more than 3 percentage points from the start of 2015, the most among 20 emerging markets tracked by Bloomberg. That means investors are demanding a hefty rate to compensate for the risk they're taking by buying the bonds. Fitch and Moody's declined to comment.

"What the country needs is a stable, democratic government and an independent central bank." —*Marcus Kiraly, Toronto-Dominion Bank*

"I'm pretty sure Turkey will be downgraded if things don't change, and it's hard to see where that change is going to come from," says Markus Kiraly, head of the emerging-markets foreign exchange trading desk at Toronto-Dominion Bank in London. "What the country needs is a stable, democratic government and an independent central bank." Governor Erdem Basci has been under pressure from the Erdogan administration to lower rates.

The lira, down 21 percent this year, is the third-worst performer among 24 major emerging markets. Turkey is more reliant on foreign capital than many countries because of the size of its current-account deficit, which sees more money going out—to service debt—than coming in. Although the deficit is expected to shrink to 4.9 percent of gross domestic product this year, it still compares poorly with the emerging-markets average of 1.5 percent.

Turkey's finances will remain under stress. "The size of the current-account deficit and the amount of debt that needs to be rolled over is so large that it creates risks and vulnerabilities," says Neil Shearing, chief emerging markets economist of Capital Economics. "History suggest this ends in a very messy way." —*Jack Fairweather, Constantine Courcoulas, and Isobel Finkel*

The bottom line An outbreak of fighting, dollar-denominated debt, and a weak lira put Turkey's investment-grade rating at risk.

Edited by Christopher Power
Bloomberg.com

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Can Netflix Become Must-See TV in Japan?

▶ **The streaming service is betting it can prosper in a land where free TV still reigns**

▶ **"In Japan there's a culture of not paying for content. That's only just starting to change"**

The successful expansion by **Netflix** into Australia, Canada, Europe, and Latin America over the last five years has increased investor confidence in the streaming service's plan to build the first worldwide, online television network. Its steady growth—users topped 65 million globally in June—has fueled a $22.4 billion increase in Netflix's market value since the end of 2014.

For all its success, Netflix has been a Western phenomenon. About 65 percent of its subscribers are in the U.S., while an additional 19 percent will hail from Brazil, Canada, and the U.K. by yearend, estimates Nomura Securities. By the end of 2016, Chief Executive Officer Reed Hastings wants to reach the rest of the globe, a sprint through more than 150 countries across Africa, Asia, Eastern Europe, and the Middle East. That push begins with Netflix's Sept. 2 entry into Japan, home to more broadband households than any of its current markets outside the U.S.

Yet Japan has vexed other Western media companies, including U.S. rival **Hulu**, who want the country's aging consumers to pay for TV content. And the subscription video-on-demand market there is about a tenth the size of the streaming market in the U.S. That's likely one reason Netflix executives, including Hastings, have lowered expectations. "We expect a slow and steady growth in the Japanese market relative to other markets," Hastings says. "The Japanese are slow to warm and trust the brand."

A smooth rollout in Japan would help calm investors' lingering concerns about Netflix's expansion plans. The degree of difficulty there is higher than in the West; and while every country has its quirks, Japan will be instructive for the company's entry into bigger markets such as China and India, says Vivek ▶

ILLUSTRATION BY JOSH FREYDKIS

◀ Couto, executive director of Media Partners Asia, a media and telecommunications consulting firm. "Japan is a market more challenging than anywhere they've been," Couto says.

Despite Japan's reputation for advanced technology, its TV market is retrograde. Most people watch one of seven free broadcast networks and use digital video recorders to tape their favorite dramas, according to Couto. Fewer than 30 percent of Japanese households even subscribe to pay TV, and subscription video on demand generated sales of just $450 million last year, Media Partners Asia estimates. That compares with about 85 percent and $4 billion, respectively, in the U.S.

"It's not going to be like Australia, where Netflix has streamrolled its way in and became the dominant provider," says Seung Bak, CEO of U.S.-based video provider DramaFever, which buys content from Japan and other international markets. "In Japan there's a culture of not paying for content. That's only just starting to change."

Japan has also turned inward at a time when Hollywood studios have increased their reliance on foreign markets such as China for growth. Foreign films' share of the Japanese box office dropped to 42 percent in 2014 from 73 percent in 2002, according to the Motion Picture Producers Association of Japan. By contrast, China has become the most important foreign market for U.S. films and has overtaken Japan as the world's second-largest film market.

That ups the risks for Netflix, as its global strategy has relied on viewers in most countries having similar tastes. Its most popular shows in the U.S., such as *Orange Is the New Black*, are also its top shows overseas.

To entice viewers, Netflix will offer local originals at its Japan launch, a first for it in any global market. While local shows eventually make up 10 percent to 20 percent of offerings in most Netflix territories, that will rise to 40 percent in Japan, says Greg Peters, head of Netflix's operations in Japan.

"It's not going to be like Australia, where Netflix has steamrolled its way in and became the dominant provider."
—*Seung Bak, DramaFever CEO*

One of the first local originals is *Terrace House*, a reality show produced by **Fuji Television Network** that bears some similarity to **MTV**'s *The Real World*. It will be central to Netflix's pitch to Japanese viewers, as will *Daredevil*, from **Walt Disney**'s Marvel Studios. While U.S. shows are often relegated to second-tier cable networks in Japan, Netflix sees an opportunity to bring them into the mainstream by promoting them more aggressively than is usually done. "American TV shows are not as popular in Japan," says Ted Sarandos, Netflix's chief content officer. "I'm not convinced that's because Japanese have radically different tastes than the rest of the world."

Netflix figures the potential for an on-demand revolution exists, since much of Japan has access to broadband Internet at home, and people routinely watch videos over their mobile phones. The two largest subscription video providers in Japan have ties to mobile phone carriers **SoftBank Group** and **NTT Docomo**, which offer them as part of larger phone packages. Netflix on Aug. 24 announced its own partnership with SoftBank, which will promote the service in its stores and kiosks, on its website, and in other retail outlets. SoftBank customers will be able to pay for Netflix on their phone bill, and the Netflix app will arrive preinstalled on new smartphones in October. Consumer electronics giants **Panasonic** and **Sony** have agreed to include a Netflix button on TV remotes.

The deals reflect a conscious effort by Netflix to strike a conciliatory tone with local players that can influence consumers. Hulu struggled to earn that trust when it entered Japan in 2011. The Japanese viewed Hulu as *gaijin*, or foreigner, according to Media Partners' Couto. Plus, it charged about $15 a month; Netflix will cost less than the $8.99 most of its U.S. subscribers pay. Hulu didn't gain traction until its prices were lowered and its local unit was sold to **Nippon Television Holdings** in 2014.

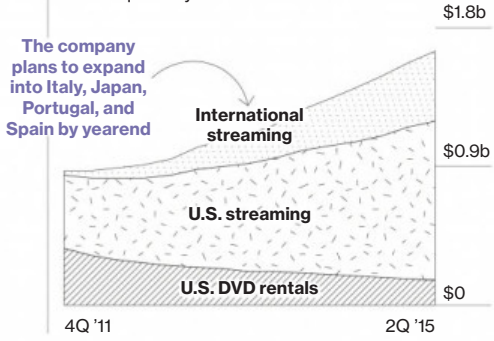
The real challenge is to generate excitement in a place that isn't clamoring for Netflix, says Cameron Johnson, a company executive working on the Japanese site. While most Japanese websites are dense with small photos and many entry points, Netflix opted to stick with the spare look it uses in other countries. Johnson says he'll start tweaking the service within minutes of its debut, responding to complaints and praise. Netflix's entry into Latin America in 2011 was slow to take off, but the company credits its eventual turnaround to more than 100 different changes it made to the service based on viewer behavior and feedback.

That nimbleness is one reason investors support the expansion into unfamiliar territory. Anthony DiClemente, an analyst with Nomura Securities in New York, estimates Netflix may approach 5 million subscribers in Japan by 2020, just behind its bigger markets in Germany, Brazil, and the U.K.

Hastings won't give hard numbers, but he's optimistic about Netflix's prospects. "It may be one of our best markets in the long term because when the Japanese society embraces a brand, it is a very deep connection, very long-term," he said on a recent earnings call. "So we're willing to make that investment knowing that it's not the quick route to success that might be in other countries."
—Lucas Shaw, with Pavel Alpeyev

The bottom line Betting that streaming is a global phenomenon, Netflix will expand to more than 150 countries by the end of 2016.

Overseas Is the New Black
Netflix quarterly revenue



Autos

For Tesla, Stores Are Classrooms, Too

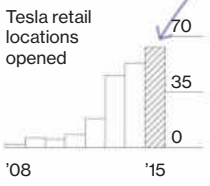
- Aiming for tenfold growth by 2020, it wants them to educate buyers
- "The first questions we get are always about charging"

Elon Musk, the visionary chief executive officer of **Tesla Motors**, has proved to be an adroit salesman, capturing the public's imagination for a greener future with his stylish—and pricey—electric vehicles. That's made him a fixture on magazine covers and a coveted guest on TV shows (page 22), helping him to raise billions from investors eager to finance his vision. Now he



A New York store

Come on Down



Tesla stores opened so far this year, including 40 in North America

63

DATA: TESLA MOTORS

faces his biggest sales job yet: finding buyers for a lot more cars.

Musk has vowed to sell 500,000 electric vehicles a year by 2020—an aggressive tally for a company that in August lowered its 2015 sales goal from 55,000 vehicles to 50,000. As the carmaker tries to move beyond early adopters, educating ordinary drivers about electric cars will be key. Tesla isn't yet big enough to justify the cost of a national ad campaign to do the job. So it's counting on its 200 stores worldwide to demystify the technology for customers.

Mostly in high-end malls, Tesla locations are much like the "experience" stores once favored by consumer electronics makers; the idea is less to sell a product on the spot than to let shoppers spend time with the brand. There's no hard sell. "Product specialists" greet and educate visitors. And while plenty of shoppers visit the stores, ultimately many configure and purchase their car online.

In coming weeks, stores will install interactive displays and graphics focused on four major themes: safety, "autopilot" features, Tesla's charging network, and the motors that power the axles. "People who buy an electric vehicle go through a very different process than someone buying a car with an internal combustion engine," says Ricardo Reyes, a Tesla spokesman. "No one goes into a car dealership and says, 'How does a gas station work?' But the first questions we get are always about charging." Visitors with range anxiety can plug in a destination and speed (faster driving uses more battery power) to locate charging stations on the route.

Tesla is going mainstream at a time when entrenched luxury brands such as **Audi**, **BMW**, and **Mercedes-Benz** are also pouring billions into their stores and models. With vehicles that start north of $70,000, Tesla is a niche brand for well-heeled drivers; its luxe rivals sell entry-level vehicles that even millennials can afford to lease. The Model X SUV, which begins delivery in September, could help Tesla attract a wider range of customers. So could a mass-market car called the Model 3, due in late 2017, because of its lower price. But investors remain jittery. Tesla's shares have fallen about 10 percent in the past 12 months, in part because of slower-than-expected growth in China and the lowered 2015 sales target.

Tesla's direct sales strategy is unorthodox. For decades most U.S. states forbade automakers from selling cars directly to consumers, forcing them to use networks of independent dealers. Tesla has fought battles in several states to avoid franchised dealers, though attractive markets including Arizona, Michigan, and Texas still won't let it go direct. So it's opened "galleries" in malls in Dallas and Houston, where customers can learn about the cars but employees can't discuss prices or offer test drives.

Alan Baum, who runs a market-research firm in West Bloomfield, Mich., says eventually Tesla may have to open traditional dealerships. Trying to sell 500,000 vehicles a year without the help of local operators, he says, is "a whole other order of magnitude." Jessica Caldwell, a senior analyst at car researcher Edmunds.com, says half of the people who buy a new car are trading one in, typically requiring new car outlets to also have used-car lots. But "Tesla's stores are in pedestrian promenades and malls, so at some point Tesla's retail locations are going to need more space," she says. "And as Tesla moves to a more mainstream vehicle, they'll have more service needs."

For now, Tesla wants to become a lifestyle brand. Like BMW, **Ferrari**, and **Porsche**, it has a fashion line, including a $300 tote bag, $100 driving gloves, and a $40 iPhone sleeve. Like the fashion industry, Tesla plans twice-yearly makeovers of its stores to generate buzz. In July it named former Burberry executive Ganesh Srivats chief of North American sales. Says Kate Benson, a recruiter at Martens & Heads, who focuses on fashion, retail, and luxe goods: "There are a lot of opportunities to learn from luxury retail, which is all about building relationships with customers and keeping them loyal." —*Dana Hull*

The bottom line To meet its annual sales target of 500,000 vehicles by 2020, Tesla is boosting its stores' ability to educate buyers.

BRENDAN MCDERMID/CORBIS

Airlines

Making Qatar's Skies Friendlier for Employees

- The emirate's carrier seeks to allay complaints of female cabin crew
- It's stopped telling 35-year-olds, "No, you can't have a family; wait"

It's 10 a.m. in Doha, and more than 200 **Qatar Airways** cabin crew are gathered in an airport hotel ballroom. Taking the mic, a female flight attendant fires off a query about a policy barring cabin crew from using mobile phones in public while in uniform, garnering murmurs of approval. Another asks why those living in company-owned housing must be in their rooms from 4 a.m. to 7 a.m. She gets a round of applause.

Fielding questions is Rossen Dimitrov, the senior vice president who oversees the carrier's 9,500 cabin crew, 80 percent of whom are women. While pledging to review the curfew and other concerns, he notes the carrier is already being responsive, as evidenced by recently loosening its restrictions on marriage and pregnancy. "As the airline matures, the workforce matures," he says later. (Qatar Airways permitted access to the meeting on condition that comments not be cited directly.) "You can't turn to someone who is 35 years old and say, 'No, you can't have a family; wait.' We want to retain people."

Qatar Airways' rapid expansion ▶

from a regional carrier into a long-haul powerhouse has brought the conservative values of its home state into conflict with Western views on women's rights. With thousands more flight attendants from places as far-flung as Peru and Pakistan set to be hired by 2018, the carrier has scheduled about two dozen meetings this year to explain shifting policies and to better understand workers' needs. It has already scrapped rules that allowed the airline to fire cabin crew who married within their first five years of employment or got pregnant. Under guidelines implemented in December, flight attendants can get married anytime after notifying the company, and pregnant crew will be offered temporary ground jobs.

Qatar isn't alone among Gulf carriers struggling to maintain smooth relations with crew. **Etihad Airways** of Abu Dhabi has been criticized for excluding a trouser option for women when introducing its latest uniforms, though the carrier says that's because its flight attendants didn't want them. Dubai-based **Emirates** has drawn complaints from cabin crew about working conditions and in February began similar meetings to hear their concerns.

Qatar, though, has borne the brunt of the criticism. In a report released in June, the International Labor Organization said the Qatari government had allowed its flag carrier to "institutionalize discrimination." The United Nations agency acknowledged that things are improving. But it said it was waiting to see whether the relaxed rules on marriage and pregnancy are fully implemented and questioned ongoing restrictions, such as a ban on female attendants being dropped off at work by men they're not related to.

The latter provision "reflects a cultural norm in Qatar," the company said in an e-mailed response to the ILO report. Qatar Airways should be given credit for the steps it has already taken and for "accepting that there are still aspects on which it may need to work," it said.

Dimitrov in March added fuel to the controversy when he sent an e-mail to staffers that included a blurred-out photo of a drunk female flight attendant, whose behavior he said left him "ashamed and disturbed." Yet he says the changes have been driven mostly by the need to retain crew members as the carrier expands. It will add at least 6,000 flight attendants in the next two years to crew 320 new jets.

He insists that the carrier is always transparent about the cultural norms crew members must adhere to. Qatar is a conservative place, Dimitrov says, and anyone coming to work for the airline or any other company must accept and adjust to that. "Sometimes it's hard for people who've never been to this part of the world to understand," he says. "I'm not saying bad or good, but beliefs are different, and we need to accustom ourselves to the way things are." —*Deena Kamel Yousef and Mohammed Aly Sergie*

The bottom line Qatar Airways, set to add 6,000 flight attendants within two years, is easing rules on how they must behave.

A Turbulent History of Flight Attendant Rules

Marriage	Pregnancy	Weight	Bed Check
United Airlines 1968	**Pan Am** 1971	**American Airlines** 1991	**Qatar Airways** 2015
Allows single attendants to wed; starts hiring married women three years later	Stops firing pregnant attendants, but requires mandatory unpaid leave	Lets older attendants weigh more, tweaking its ban on "bulges, rolls, or paunches"	The carrier is reviewing the 4 a.m. curfew for attendants in company housing

Television

On Colbert's Couch, CEOs Get a Seat, Too



▶ The new *Late Show* host will chat up execs from beyond Hollywood

▶ "A show with this format can have a humanizing effect" for executives

With a couple of weeks to go before the debut of his late-night talk show, Stephen Colbert has revealed a part of his strategy to beat Jimmy Fallon: corporate suits. The comedian, who's taking over from David Letterman, will use his perch at **CBS** to interview a more diverse range of guests than appears on the average late-night gabfest. For his first week he's booked two of the most intriguing businessmen in the U.S., **Tesla Motors** Chief Executive Officer Elon Musk and **Uber Technologies** CEO Travis Kalanick.

Viewers should expect more CEOs in the future—along with astronauts, diplomats, and policy-minded intellectuals, according to Colbert's booker, Emily Lazar. She says a blend of comedy and intelligent conversation can set Colbert apart from his peers, who lean more on celebrity interviews and sketches that get recirculated online. "There are many CEOs who are celebrities in their own right," she says. "I'm not interested in a conventional CEO. I'm interested in people who are innovators, not time servers."

Lazar compared booking Musk—to many, this generation's Thomas Edison—to the appearance of **Airbnb** CEO Brian Chesky on Colbert's previous show for **Viacom**'s Comedy Central. Her team isn't keen on the hotel or auto industry, but conversations about the sharing economy and the future of energy resonate with viewers. One dream guest? **Netflix** CEO Reed Hastings, who has reshaped television.

CBS hopes Colbert can deliver something Letterman seldom did in his later years: young viewers. While Letterman drew a nightly audience that dwarfed that of *The Colbert Report*, Colbert is popular among younger people, the group advertisers care about most. He and Jon Stewart drew more viewers age 18-49 than Jay Leno, the most-watched late-night host, on some nights.

An appearance on late-night TV gives executives the opportunity to connect with viewers in a more personal way. Kalanick runs a company valued at about $50 billion and has been battling established taxi and limo businesses in countries around the globe. "A show that is structured in this way can help give an executive Everyman appeal," says Brian O'Shaughnessy, co-founder of the strategic communications firm the Pramana Collective. "There is growing class tension in this day and age, and given the economic disparity that occurs between the average CEO

and the average worker, frankly, participation in a show with this format can have a humanizing effect."

Over the years, Colbert interviewed scientists, authors, and political activists. On the broadcast networks, Letterman and NBC's Leno were more focused on celebrities and top 10 lists. Although Letterman asked tougher questions, any list of his top moments features more interviews with the likes of Drew Barrymore and Madonna than captains of industry.

The new generation of hosts, such as **ABC**'s Jimmy Kimmel, have won loyal followings with playful banter and YouTube-friendly sketches, such as Fallon's Lip Sync Battle on **NBC**'s *The Tonight Show*. James Corden has aped the strategy with CBS's new *The Late Late Show* and its popular sketch Carpool Karaoke. "They've learned how to create entertaining little bits, and they've learned how to play with the guest, but I don't think they've learned how to have great conversations with guests," says Jeffrey Jones, director of the George Foster Peabody Awards at the University of Georgia and author of books about political satire.

Colbert's initial guest list suggests he wants to wind the clock back to the days of Jack Paar and Merv Griffin, who'd put politicians and musicians side by side on the same couch, Jones says. In a recent meeting with television critics, Colbert stressed that he isn't going to radically change the formula he used during *The Colbert Report*. While he will drop the right-wing blowhard shtick, he's still hosting a lighthearted talk show. Musk will appear the same night as Scarlett Johansson, and Kalanick will appear with country music's Toby Keith.

"I'm very interested in my guests, and I'm looking forward to being able to be sincerely interested in what they have to say without regard to having to translate it through an idiot's mouth," Colbert told TV critics in August. "So if that leads to some serious conversations, I'd be very happy."

—*Lucas Shaw*

The bottom line Stephen Colbert's guests on *The Late Show* will include more than entertainers pushing their latest film or album.

Edited by James E. Ellis
Bloomberg.com

CLOCKWISE FROM LEFT: PHOTO ILLUSTRATION BY 731; PHOTOS: 123RF (1); GETTY IMAGES (3); ALAMY (1); COURTESY FLORIDA PANTHERS HOCKEY CLUB (1)

Briefs

By Kyle Stock

A Rare Big-Box Bounce

Best Buy's business is booming thanks to the Apple Watch, flatscreen TVs, and fitness tracking devices. CEO Hubert Joly says the sheer volume of new tech toys has sent consumers to its stores for advice. Its profit in the recent quarter rose 12 percent, to $164 million, while sales at stores open more than a year rose 3.8 percent. The U.S. Department of Agriculture said U.S. farm incomes will fall 36 percent in 2015 to their lowest level in almost a decade, as surging milk, pork, corn, and soybean production hurts commodity prices. The forecast is weighing on suppliers such as *Deere*. *Johnson & Johnson* sold its no-calorie sweetener Splenda to Heartland Food Products for an undisclosed sum. Patents for sucralose, the main ingredient, expired years ago, but the deal gives Heartland a recognizable brand. Food companies increasingly use the ingredient to replace aspartame, which has been hit by health concerns. *Boeing* is finally getting its day in court against a class-action lawsuit that claims its 401(k) plan left employees with excessive fees and presented unwise investment options, including Boeing shares. The suit, on behalf of 190,000 workers and retirees, was filed in 2006 but is just reaching trial. Jerome Schlichter, the lawyer bringing the case, has managed eight settlements from 17 similar actions. Boeing has said the plan's practices were in line with industry standards. *Hennes & Mauritz*, the world's No. 2 apparel retailer, offered a $1.2 million prize for a breakthrough in clothes recycling. Garments with several different materials often end up in landfills, and current recycling methods produce relatively low-quality fibers.



The FDA said mayonnaise isn't mayonnaise without eggs. The ruling was prompted by Just Mayo, a vegan spread from **Hampton Creek**.

The number of workers **Chipotle** said it will hire on Sept. 9, in a recruiting blitz it's calling National Career Day.

4k

CEO Wisdom



"Our firm is made for this kind of market."

Douglas Cifu, CEO of Virtu Financial, a high-frequency trading company, on stocks' recent volatility

August 31 — September 6, 2015

Coal Goes to the Birds

An Ohio utility fights a rearguard battle to keep its uncompetitive power plants alive

"What we're talking about is reregulation to preserve stable prices and reliable service"

Until recently, **FirstEnergy**, a utility in Akron, favored rate deregulation. FirstEnergy, which serves 6 million customers from western Ohio to the Jersey shore, relies on coal-fired power plants that once offered some of the cheapest electricity in the region. The company benefited from wholesale competition among generators. Today, with cheap natural gas undercutting coal, FirstEnergy has decided government price supports may not be so bad after all. Its coal plants "just aren't making money in the open market," says chief spokesman Todd Schneider. "What we're talking about is reregulation to preserve stable prices and reliable service for our customers."

FirstEnergy's predicament offers a window on nationwide turmoil in the energy industry. In addition to competition from natural gas and increasingly cost-efficient wind and solar power, coal-fired plants face proliferating climate rules reducing carbon dioxide emissions—most notably the plan President Obama unveiled on Aug. 3 requiring states to cut emissions by almost a third by 2030. Some utilities are meeting challenges with innovation. Goaded by a New York state program, **Consolidated Edison** is overhauling its business model to accommodate rooftop solar arrays and neighborhood "micro grids" that allow individuals, apartment buildings, and businesses to share the electricity they generate and even sell some of it back to the utility.

FirstEnergy, by contrast, has doubled down on coal. Its latest proposed rate plan would ensure the purchase of particular plants' output, no matter how high the cost. This would save its W.H. Sammis coal-fired plant north of Steubenville, as well as the company's share of coal power from the Kyger Creek plant in southeast Ohio and the Clifty Creek plant in Indiana. Customers also would underwrite the purchase of what's generated by FirstEnergy's Davis-Besse nuclear plant on Lake Erie.



FirstEnergy concedes that the 15-year "power purchase agreement" would cost customers in its first three years but argues that over the next dozen it would save them $2 billion. That's based on an assumption that natural gas prices will rise steeply. The Office of the Ohio Consumers' Counsel, a state agency, has done its own projections and estimates that rather than enjoy savings, customers would pay $3 billion over a decade and a half. "What they're talking about is a $3 billion consumer subsidy for unprofitable plants," says Dick Munson, the Environmental Defense Fund's Midwest clean-energy expert.

The Public Utilities Commission of Ohio will begin hearings on FirstEnergy's proposal on Aug. 31. The company's chief executive officer, Chuck Jones, has presented his case in the Cleveland *Plain Dealer*. "Ohio is losing its energy independence," he wrote in an Aug. 2 op-ed. "New environmental rules recently forced the closure of several of FirstEnergy Corp.'s Lake Erie power plants."

Indeed, in April, the company completed the shuttering of coal-fired plants in Ashtabula, Eastlake, and Cleveland, the oldest of which began generating electricity in 1911. FirstEnergy chose to pull the plug on the plants rather than meet U.S. Environmental Protection Agency pollution standards for mercury and other toxic metals. Shutdowns aren't unique to Ohio. Nationwide, since 2011, almost 200 coal-fired plants have closed or been slated for closure, according to the Sierra Club. (Michael Bloomberg, founder of Bloomberg LP, owner of this magazine, works with the Sierra Club through his philanthropy to support the retirement of coal plants.)

A way not to keep the tractors down on the farm 26

How Fargo and Bismarck just got a little closer to Tehran 27

> "We do not believe it's in the best interests of our customers to mandate higher costs."
> —*FirstEnergy spokesman Doug Colafella*

Corporate electricity users have split over FirstEnergy's rate plan. **Alcoa**, **DuPont**, and some of the largest industrial power buyers, which enjoy special discounts, back the utility. The Ohio Manufacturers' Association Energy Group opposes the plan, calling it a wasted subsidy. Another coalition—including retailers **Lowe's**, **Macy's**, and **Staples**—argued in an Aug. 10 blog post that "plant subsidies would serve as a disincentive for burgeoning investment in new, more efficient, and cleaner natural gas-fired generation." Price supports likewise discourage investment in wind and solar power.

In his *Plain Dealer* op-ed, Jones countered that natural gas, wind, and solar are all fine by him. "But," he added, "these resources alone are not currently capable of replacing plants that can operate 24/7 under the most extreme circumstances."

Part of the reason lower-emission and no-emission alternatives aren't as prolific as they might be in Ohio is that FirstEnergy has tried to stifle them by other means. Last year, the company backed a successful state Senate bill that froze a 2008 Ohio mandate forcing utilities to cut power usage via efficiency improvements and get a quarter of their power from renewable sources. "We're not against energy efficiency or renewables, but we do not believe it's in the best interests of our customers to mandate higher costs in this way," says FirstEnergy regulatory spokesman Doug Colafella.

In 2014, FirstEnergy filed a complaint with the Federal Energy Regulatory Commission (FERC) seeking to stop grid operator **PJM Interconnection** from including in its wholesale capacity auctions a program called demand response, which allows power users to be paid to consume less electricity during peak periods. FirstEnergy fears that trying to control power demand, rather than meeting it with extra supply, will cause "premature closing of even more power plants," Colafella says.

FirstEnergy also belongs to an industry group that has challenged FERC's authority to encourage demand response; the Supreme Court is expected to decide that case next year. In its brief supporting FERC, the Obama administration argued that the program would safeguard the reliability of electricity running through the power grid: "Besides reducing rates, demand response, by decreasing the amount of power necessary to balance supply and demand, reduces the risk of system failures like blackouts and curbs the market power of generators."

Keeping the lights on and factories running is a vital goal for utilities and the rest of society. FirstEnergy seeks to get there by preserving uneconomic, pollution-prone coal burners—a risky bet on the past. —*Paul M. Barrett*

The bottom line Ohio regulators are considering a utility's request to prop up coal, which is being undercut by natural gas.

Campaign 2016

The Kochs Have an Immigration Problem

- They want to attract Latinos, but Tea Partiers are rallying to Trump
- "He says what everyone else is thinking"

Every year, Americans for Prosperity (AFP), the political group backed by the billionaire brothers Charles and David Koch, gathers thousands of conservative activists to share strategies for building a popular movement to advance their small-government, low-tax philosophy. This year's Defending the American Dream Summit, held in Columbus, Ohio, on Aug. 21-22, attracted about 3,600 people to compare notes for weakening labor unions and stopping Medicaid expansion. Yet everyone on the floor seemed to be talking about the one topic left off the agenda: immigration.

That may be a problem for the Kochs and their network of like-minded donors, who've invested heavily in broadening their appeal beyond the traditional conservative base of older, white voters—and, specifically, in appealing to minorities, immigrants, and young people. In Columbus, activists got training on how to reach Snapchat-happy millennials and knock on doors in black neighborhoods to spread the gospel of the free market. They heard a former farm laborer, the son of Mexican immigrants, describe a Koch-backed program in Las Vegas that helped Latinos pass their driver's tests and get licenses. The crowd dutifully took notes and applauded politely.

When it was time to file into the bleachers to see presidential candidates speak, talk of outreach faded away. The crowd went wild for Texas Senator Ted Cruz, whose plan for guarding the Mexican frontier includes 90,000 repurposed IRS employees, and for Bobby Jindal, the Louisiana governor, who promised to build a wall on the nation's southern border within six months. "Immigration without assimilation is invasion!" proclaimed Jindal, the son of Indian immigrants.

The message stuck with summitgoers as they filed into a nearby bar for an AFP-sponsored "Buckeye bash." "Send 'em back," said David Dandrea, an 82-year-old former school custodian from Altoona, Pa., referring to undocumented immigrants. "A lot of them are coming over and getting on welfare. They overload the hospitals. A woman who's eight months pregnant comes over the border to have her kid." Fellow conservatives in bright red and highlighter-yellow AFP T-shirts wandered past. John Mellencamp's *Hurts So Good* blared from the speakers.

Donald Trump, who's dominated media coverage of the presidential race and made a crackdown on "the illegals" the centerpiece of his campaign, was never far from people's minds in Columbus. Praise for Trump, who wasn't invited to speak, was virtually unanimous, even from those who said they were backing other candidates. "He's like the last little bit of salt you put in the stew to bring out the flavor," said Rita Singer, a retired fabric store saleswoman from Moncks Corner, S.C. "He says what everyone else is thinking." ▶

$889m

Amount the Koch donor network plans to spend in 2015-16 pushing its agenda

PHOTO ILLUSTRATION BY 731; PHOTOS: GETTY IMAGES (1)

Tim Phillips, the president of AFP, cautioned against reading too much into the Trump buzz. "It's partly impacted by the breathless 24/7 coverage," he says across the street from the Greater Columbus Convention Center, where the event was held. "If the summit were in two more months, and it's 24/7 coverage of the Iran nuclear deal, you would find people bringing that up more." Phillips pointed out that the activists the Koch network cultivates care about all kinds of issues, from abortion to gun control, but AFP, he said, remains solely focused on shrinking government and taxes. "We still have good friends who care passionately about these issues," he says. "It shows a healthy, vibrant movement to have those discussions."

The Kochs' wealth comes from **Koch Industries**, the Wichita industrial behemoth they run. Their net worth is estimated at about $49 billion each. They've bankrolled libertarian causes for decades, although in recent years they've forged bonds with nontraditional allies. They gave $25 million to the United Negro College Fund and are working with the Obama administration to reduce the ranks of nonviolent drug offenders in the nation's prisons. Yet they've also come to rival the Republican Party as an organizing body of the American right, securing pledges from other wealthy donors to spend as much as $889 million this year and next pushing their agenda.

Their strategy for recruiting Latinos hinges on Daniel Garza, a son of migrant fruit pickers who runs the Libre Initiative, funded by Koch-affiliated groups including the nonprofit Freedom Partners. Seated before more than 500 AFP members in Columbus, he described going door-to-door in Latino neighborhoods to make the case against Obamacare. When someone asked if Trump is threatening conservatives' chances with Latinos, Garza said conservatives need to be respectful and appreciate the crucial role that immigrants play in the U.S. economy. He called Trump's proposal to deny citizenship to the children of undocumented immigrants "not realistic."

Dorothy Osborne, a stay-at-home mom from Tennessee, disagreed. "Yes it is!" she called out as Garza spoke. In the hallway outside, Osborne said she agrees with much of Garza's message. "We have to go and talk to these people," she said. "We want them to love freedom." But she said she doesn't think an immigration crackdown would alienate Latinos who live here legally. "It's economics, it's crime, it's the drain on our resources. And it's keeping America American," she said. "If our country becomes more like Venezuela, that's not helping anyone."
—Zachary R. Mider

The bottom line Like the GOP, the Koch brothers are trying to engage Latinos while their base remains anti-immigration.

Quoted

"You have stated that any delivery beyond 2-3 days is a 'failure' and I agree."

Democratic presidential candidate **Bernie Sanders** in a letter to Postmaster General Megan Brennan complaining about the slowdown in mail delivery since the U.S. Postal Service eliminated overnight delivery for first-class mail in January

Agriculture

The Sharing Economy Comes to the Farm

- As commodity prices tank, growers look to rent out their tractors
- "The $500,000 in their shed might be put to better use"

Three months out of the year, the 5,500 members of the Heartland Co-op push their sprayers and fertilizing machines to maximum capacity in hopes of getting the most out of a million acres of central Iowa farmland planted mostly with corn and soy. The rest of the time, the machinery typically sits in barns, idle until the next season, like most of the $248 billion of equipment owned by farmers across the country.

FarmLink, based in Kansas City, Mo., seeks to turn that equation around. Run by Ron LeMay, who headed Sprint's wireless division until 2003, the company has created a platform to help farmers rent out their unused equipment to growers who may be hundreds of miles away to take advantage of the differences in peak harvest seasons. Farm co-ops and equipment dealers can already sign up online, and FarmLink may add a mobile app later this year. "It's Airbnb for agriculture," says Jeff Dema, FarmLink's president for grower services. "Farmers are examining their bottom lines and wondering if the $500,000 in their shed might be put to better use."

The company lets farmer cooperatives and agricultural retailers set rental terms. It also offers to transport heavy equipment, removing one major obstacle to sharing, and will help farmers secure secondary insurance as needed. "The opportunity to improve productivity in this industry is dramatic," Dema says. "If you can take machinery that's being used 7 percent of the time and even double that, you've had a tremendous impact."

With commodity prices tanking and farm profits falling from a peak of $124 billion in 2013, farmers are eager for ways to squeeze more money out of their combines and other heavy equipment, which cost hundreds of thousands of dollars to buy and maintain. While a U.S. Department of Agriculture forecast released on Aug. 25 put this year's farm profits at $58.3 billion, the lowest since 2006, farm-related income—which includes machinery sublets—was up almost one-third from February estimates. "There is a growing effort to share farm equipment," says Agriculture Secretary Tom



PHOTO ILLUSTRATION BY 731; PHOTOS: ALAMY (1); GETTY IMAGES (1). OPPOSITE PAGE: RON SACHS/CORBIS (1)

Vilsack, a Democrat who had been Iowa's governor.

Contractors, custom harvest crews, and equipment-rental services already exist to help farmers in a pinch. Most have longtime ties with individual farmers. The idea of letting strangers rent expensive equipment—among farmers' biggest capital investments—might still be a tough sell, some say. "It's maybe a neat idea, but I don't see it as a disruptive proposition," says Martin Richenhagen, chief executive officer of **Agco**, maker of Massey Ferguson tractors and the world's second-biggest agricultural equipment manufacturer after **Deere**.

Heartland Co-op Executive Vice President Marc Melhus says the pressure on farm profits makes the concept more attractive than it might once have been. Heartland is among the first co-ops to sign up for FarmLink's sharing program. "You wouldn't have thought you needed something like this 10, 15, 20 years ago," he says. "But if the concept makes sense, it seems worth trying." —*Alan Bjerga*

The bottom line As farm profits fall, a Midwestern company helps struggling farmers rent their equipment in the off-season.

Advertising

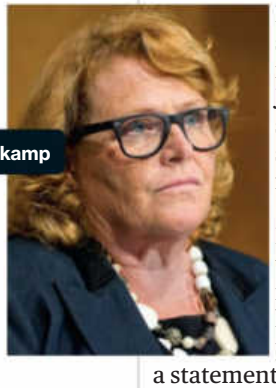
Iran Is Huge Right Now In North Dakota

- The state's TVs are swamped with ads for and against a nuclear deal
- "It's less costly than, say, doing the same thing in California"

The day after the U.S. and other world powers announced an agreement to curtail Iran's ability to build a nuclear weapon, a check for $19,618 was cut to KFYR, the NBC affiliate in Bismarck, N.D. The money came from a nonprofit called Citizens for a Nuclear Free Iran, which opposes the deal. It gave the station instructions to begin running ads against the agreement "until further notice," according to records filed with the Federal Communications Commission. The first one aired during KFYR's broadcast of the *Today* show on July 17, only three days after the Iran accord was announced.

The ads were part of a campaign to sway Democratic Senator Heidi Heitkamp, a centrist, who's among a handful of Democrats who haven't said whether they'll back the agreement. North Dakota, the country's 48th-biggest state by population, ranks behind Baltimore, Denver, and Philadelphia and ahead of New York City for the volume of Iran-related ads that have run this year. "I don't know that I've ever seen a bigger ad campaign aimed at a specific issue apart from an election in North Dakota," says Representative Kevin Cramer, a Republican who lives in Bismarck and opposes the Iran deal. "To see this level of advertising is unusual, for sure, and certainly indicative of the seriousness of the issue and the importance of a single Senate vote."

Nationally, 14 groups have spent an estimated $14 million to run about 24,600 TV spots arguing for and against the Iran agreement in 55 local broadcast markets and on national cable, according to data compiled by Kantar Media's CMAG, which tracks political advertising. The largest buyer has been Citizens for a Nuclear Free Iran, which was created to oppose the Iran deal by the American Israel Public Affairs Committee, known as AIPAC. It's spent about $9 million buying more than 15,500 TV ads in 34 local markets and on national cable. It plans to spend as much as $20 million advertising against the Iran agreement by the time Congress votes in September—far more than the $1.7 million AIPAC has spent this year lobbying Congress, its main activity. "There are still a number of undecided senators and members of Congress," says Patrick Dorton, a spokesman for Citizens for a Nuclear Free Iran. "Our goal is to educate the public and encourage the public to weigh in with their elected representatives."

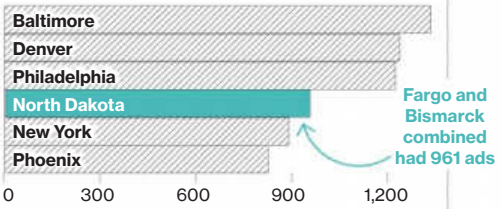


Heitkamp

Montana saw a spike in Iran-related advertising before Democratic Senator Jon Tester announced Aug. 13 that he'd vote for the deal. More than 1,000 TV spots ran in Billings, Butte, Great Falls, and Missoula through Aug. 24, according to CMAG. Most were paid for by a group called Veterans Against the Deal, which has committed a large portion of its $1 million ad campaign to North Dakota. The nonprofit, created in July, has not disclosed its donors. One of its ads features Robert Bartlett, a retired U.S. staff sergeant who was wounded in Iraq in 2005, imploring viewers to tell their representatives to vote no. "Call your senator, tell 'em no deal for Iran. If you don't call, who will?" he asks, as a picture of Heitkamp appears on screen.

Top Markets for Iran Ads

Number of broadcast TV spots aired through Aug. 24



DATA: KANTAR MEDIA CMAG

"This is a small state where a couple hundred phone calls is a big deal. If 500, or 600, or 1,000 people call any one of our congressional delegation—that gets their attention," says Mark Jendrysik, a political science professor at the University of North Dakota. "It can be a good investment for issue-oriented groups, because it's less costly than, say, doing the same thing in California."

Not all the ads playing on North Dakota's airwaves are against the deal. J Street, a liberal nonprofit that supports the Iran agreement, began running ads in Fargo on Aug. 12, according to CMAG. The group plans to send Uzi Eilam, former director general of the Israeli Atomic Energy Commission, to speak in Fargo on the merits of the accord, says Jessica Rosenblum, a spokeswoman. Heitkamp, she says, "is the top target for us in North Dakota."

The ad storm catches Heitkamp as she's laid up recovering from hip-replacement surgery. She hasn't said publicly how she plans to vote. According to a statement from her staff, she's "still reviewing the agreement and is continuing to speak with national security leaders, nonproliferation experts, and the administration to ask questions and fully understand the deal before making a decision." —*Tim Higgins, with Ken Goldstein*

The bottom line Nonprofits are focusing advertising on North Dakota to sway the state's Democratic U.S. senator on the Iran agreement.

Edited by Allison Hoffman
Bloomberg.com

August 31 — September 6, 2015

How to Jump From Cloud to Cloud

▶ Today there's no easy way to escape your cloud provider. Some big Web names are trying to fix that

▶ "There's a very large sense of urgency"

In 2010, when **Netflix** was still early into its shift from DVD rentals to online movies and shows, it started using **Amazon.com**'s data centers. Video streaming's popularity was growing fast, and Amazon Web Services, the retailer's cloud computing division, had the capacity to handle the load. Now that Netflix streams 100 million-plus hours of video every day, it's sticking with Amazon partly because of Amazon's scale and features, and partly because switching vendors "would be a significant multiyear effort," says Yury Izrailevsky, Netflix's vice president for cloud and platform engineering.

All the major cloud providers—including Amazon, **Salesforce.com**, **Microsoft**, and **Google**—use technology different enough so that switching from one to another would require customers to rewrite much of their software. (Jeremy King, chief technology officer of **Wal-Mart Stores**' e-commerce division, compares picking a cloud provider to staying at the Hotel California—"You can check out anytime you like, but you can never leave.") Still, in the next five years about one-third of companies using the cloud may either switch providers to get a lower price or more features, or add another provider to get servers closer to customers or have a backup should one company suffer a meltdown, says David Linthicum, a consultant who creates cloud applications for companies.

That's why last year's top story in the $57 billion public cloud market was the rise of so-called container software such as **Docker**, which chops up and isolates apps to make transitions easier. This year, as Docker and more than a dozen other container makers battle for market share, users have grown worried about falling into the same trap they did with the cloud—getting stuck with one provider that may not be the best long-term choice. The major cloud companies and some of their biggest clients have begun trying to come up with standards they hope will keep the containers interchangeable, too.

Containers break up apps into smaller packages of code, each bundled with all the basic system software the apps need to operate independently of whichever server plays host. This means programmers won't have to rewrite the code for each new operating system and platform as an app evolves from a project on a laptop to a global hit with millions

Switching Cloud 'Hotels'



The Old Way

If your app has any scale, chances are you customized it so much to work with one cloud provider's systems that it won't work on anybody else's.

"...you can never leave"

So switching clouds requires you to rewrite all the code specific to the old provider and set it up to work with the new one.



50%

of businesses using the cloud have this problem.

Resistance was futile



Using Containers

With container software, switching clouds is as easy as copying your apps onto the new provider's servers.



By breaking your apps into pieces of code and boxing them up, you can isolate your software from a cloud provider's underlying systems instead of customizing it.



About a dozen container technologies are vying for users, and most of the companies involved also make an extra layer of container management software.

What time is checkout, again?

Clever plans to boost Brazilian smartphone use 30

For $185,000 you can be master of your own domain 31

Innovation: A picture's worth a thousand keywords 32

"You are not going to beat Amazon at Amazon's game—you figure out what the next step is." ——*Bryan Cantrill, CTO, Joyent*

of users reached via enormous servers, says Jim Zemlin, executive director of the Linux Foundation, a nonprofit that oversees the open source Linux OS. "A developer will be able to write that software and deploy it without having to spend six months" rewriting it for broader and bigger systems, he says. Moving containers from one cloud provider to another is as simple as downloading them onto the new servers.

While market share data are tough to pin down, Docker set the early standard in container software, and the leading options among its dozen or so rivals include Warden, LXD, and **CoreOS**, according to researcher IDC. Many of the container makers, plus Google, are also refining competing versions of container orchestration software, the layer of programming that helps containers knit themselves together in the proper order to make an app run. Kubernetes, an open source program led by Google, is the early front-runner, says Larry Carvalho, an analyst at IDC.

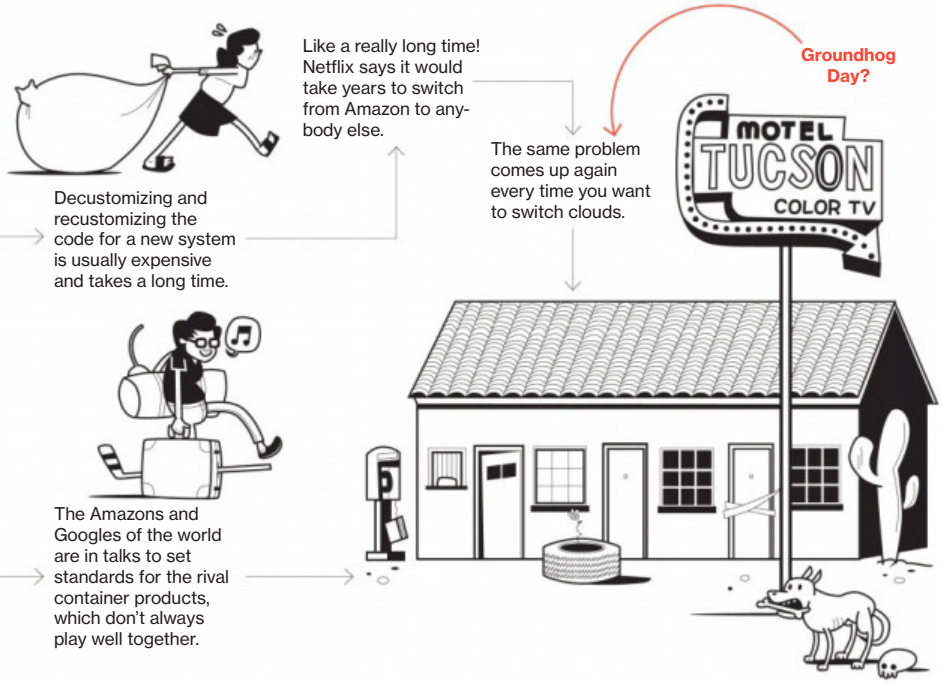
The wide range of options, however, poses a problem, says Linthicum, the consultant. Without a common standard, "you could pick the wrong horse, just like VHS vs. Betamax," he says, and wind up spending as much as 30 percent on top of the original project costs to re-create an app for different container software.

To address compatibility concerns, the Linux Foundation and two industry groups have begun working on common standards. Amazon and Microsoft are leading the Open Container Initiative, founded in June. The Cloud Native Computing Foundation, formed in July by companies including Google, **IBM**, **Intel**, **EBay**, and **AT&T**, is focusing on orchestration software. "By putting together this community and creating a common environment, we hope to open up the ability to run in a multicloud world," says Craig McLuckie, a group product manager at Google. "There's a very large sense of urgency." Among the bedrock-level things they have to agree on: final formats, compatible operating systems and chips, and ways to keep any one company from having too much control.

Whatever the standard, companies that sell cloud computing need to take advantage of container technology, says Bryan Cantrill, CTO of cloud company **Joyent**. "You are not going to beat Amazon at Amazon's game—you figure out what the next step is," says Cantrill, whose company is part of the Cloud Native Computing Foundation. Ariel Kelman, a vice president at Amazon Web Services, says he's not worried about a customer base that's more capable of shopping around. (Amazon supports Docker, for example.) "Our customer retention strategy is to delight our customers, not to lock them in," he says.

While the industry groups haven't set a date to deliver their final standards, Linthicum estimates it'll take close to two years. By then, about 10 percent of apps will be housed in containers, Carvalho estimates, up from about 1 percent today. For cloud users, the appeal is obvious, says Timur Kiykioglu, senior director of engineering at **Jive Software**, which makes office chat software. "We won't get painted in the corner," says Kiykioglu, whose company uses CoreOS containers and Amazon Web Services and is considering signing up with Google. "You never know when there's something about a service that you may need to run a different way, and you don't want to be staring down the barrel of rewriting your entire system." *—Olga Kharif*

The bottom line Containers make switching between clouds easier. The next trick is to make switching between containers easier.



ILLUSTRATIONS BY DOROTHY GAMBRELL

Medicine

Britain's Digital-Health Startups Seek First Aid

- Venture firms are hesitant to invest unless the NHS is already buying
- "Health-care solutions don't have a great revenue model" in Europe

In the U.S., venture funding for digital-health startups has risen more than fourfold in the past five years, according to the Rock Health fund. In 2014 alone the yearly total more than doubled, topping $4 billion. That was all Peter Hames needed to hear.

Hames is the co-founder of **Big Health**, for a time one of the hottest health startups in the U.K. Its online sleep therapy program, Sleepio, had won the backing of doctors and patients and a handful of industry awards. But Hames knew he faced long odds pitching the idea to the U.K.'s National Health Service, which controls almost all medical spending in Britain. So six ▶

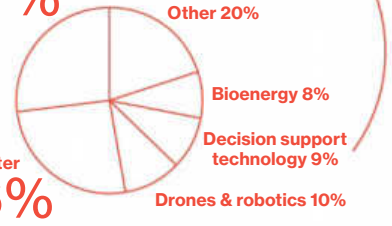
$2.1b

Global investment in agricultural technology for 2015 so far, according to online marketplace AgFunder. Among the standouts: $500 million for Israeli irrigation company Netafim; $185 million for New York grocery deliverer Blue Apron.

133%
Increase in total funding for the first two quarters of 2015 from the same period last year



Top five countries by funding
1. U.S. $1,028m
2. Israel $510m
3. China $155m
4. India $111m
5. U.K. $85m



$52.5m
Average investment in water technology

◀ months ago, on the advice of investor Index Ventures, the Oxford-educated native of Leeds packed his bags and moved Big Health to San Francisco. "The bigger opportunity was here," says Hames, who now sells the program to employer insurance plans. "I wanted to see it happen in the U.K., but it was clear it wasn't going to."

Big Health's move is an extreme example of the trouble facing British medical startups. Britain's state service may be great at providing health care, but startup founders complain that its tight grasp—especially as budgets decline—has left investors leery to fund potential innovations.

Little directly comparable data on annual medical venture funding exist for the U.K., but the total for Europe is likely less than $100 million, according to the European Private Equity and Venture Capital Association. That means there are fewer opportunities for European startups in one of the fastest-growing areas of technology, says Ophelia Brown, a principal at Index Ventures. "We see so many great ideas, but health-care solutions don't have a great revenue model" in the region, Brown says.

In the U.K. a company looking to sell goods or services to the National Health Service must first become an approved supplier on the government's purchase lists, called frameworks. The frameworks cover everything from pacemakers to ambulances to office shelves. The process can be baffling for startups, particularly those with technologies that don't fit into an established category. If a supplier gets approved, it begins pitching to buyers at each of the NHS's 209 regional offices or one of the dozens of other groups that monitor spending.

"The complexity is massive," says Mark Doorbar, chief executive officer of **Safe Patient Systems**, a company outside Birmingham, England, that makes software for monitoring vital signs via mobile devices. In 2011, Doorbar got his company onto a national framework for mobile health providers and started signing up local NHS units. When the framework expired last year, sales stalled, and while he has a few contracts, he's struggling to find funding.

The NHS is aware of the obstacles and wants to work with startups to improve care and efficiency, says Michael Macdonnell, who oversees the agency's strategy team in England. The service this year started a program that tests innovations to determine whether they save money or improve health. While technology "is absolutely central" to the agency's future, "we must have the right sort of innovation," Macdonnell says. "We can't just be a route to market for people who want to sell the latest version of a scanner with a few more bells and whistles."

The health service has become more open since a failed attempt to reorganize its computer systems about a decade ago, says James Wise, a principal at London venture firm Balderton Capital. But it's undeniable that the agency's power in its home market is more or less absolute. "When you prove to a £100 billion organization you have something," Wise says, "companies can go from zero to very successful overnight."

In San Francisco, Big Health's Hames says the potential payoff in Britain doesn't compare to the rewards he expects from doing business in the U.S. In July the NHS awarded him a fellowship designed to guide promising entrepreneurs; he says he's doing better selling his $10-a-week online therapy program on his own, though he wouldn't disclose revenue. "We could waste years with no impact" in the U.K., Hames says. "Although U.S. health care has its problems and there are some messed-up incentives, at least there are incentives."
—Oliver Staley, with Marie Mawad

The bottom line U.K. health startups can't get funding without clear pipelines to the 209 regional NHS offices.

Mobile

A Plan to Get More Brazilians Online

- Qualcomm helps make some data use free as phone growth stalls
- It "makes a lot of sense where data is still relatively expensive"

Once considered the next big growth engine for the smartphone industry, Brazil is on the decline. With the economy shrinking and unemployment ticking upward, many Brazilians are making do with dumb phones—particularly given the high costs of mobile data. While Brazil has more mobile subscriptions (282 million) than people (202 million), about 75 percent are prepaid plans with little to no data. Smartphone sales growth in the country dropped 15 percent last quarter after a 56 percent jump during the same period in 2014, according to researcher IDC.

In an effort to increase smartphone data use, **Qualcomm**, the world's leading mobile phone chipmaker, has been working with the state government in São Paulo and **Banco Bradesco**, one of the country's biggest banks, on a modern version of toll-free calling. The two companies spent a year negotiating with Brazil's four main wireless providers to buy data packages in bulk. The bank has begun paying to make sure use of its app is free for customers, and the government, using software developed by Qualcomm, is working to do the same for official sites by yearend.

Bradesco customers can check account balances, pay bills, and transfer money on their phones without buying a data plan. The bank began subsidizing data in 2014, after it noticed that use of its app was down and a customer survey found many users ran out of data too quickly and had limited access to Wi-Fi. Since late last year, when Bradesco began ensuring that customers' app use wouldn't count against their data totals, it's seen use of the app jump from 4 million to 7 million of its 26 million checking account customers, says Executive Vice President Maurício Minas. By the end of the year, about 35 percent of all transactions will be initiated on phones, he estimates.

With Qualcomm's help, São Paulo is developing an app called Poupatempo, meaning "save time," that aims to speed up the process of getting a driver's license or identity card by walking people through selecting and filling out the necessary forms. São Paulo will spend at least 30 million reais ($8.3 million) a year to build out the service, and it wants to make sure people are using it. "Most don't access the service online, because of the cost associated with data," says Aldo Garda, an information technology coordinator for the state government.

For Qualcomm, the payoff from increased smartphone use is obvious. For the bank and the government, the idea is to cut costs. Each visit to a teller costs Bradesco bank more than $4, whereas an online transaction means pennies, according to an Aug. 18 Frost & Sullivan study commissioned by Qualcomm. "This solution easily pays for itself," Minas says. Garda says he expects to halve visits to São Paulo government offices within two years and save additional money by reducing the load on call centers.

> "If you apply the same concept that you have with 1-800 calls to data, you can revolutionize the industry."
> —*Cristiano Amon, co-head of chips, Qualcomm*

Sponsored data, as in the São Paulo project, hasn't proved popular in the U.S., but it's had some success in emerging markets. Internet.org, a pet project of **Facebook** Chief Executive Officer Mark Zuckerberg, provides free mobile access to a limited group of websites (including Facebook) in Colombia, Kenya, Tanzania, and Zambia. Two of China's largest mobile operators began offering one-day free access to **Alibaba Group**'s Taobao Marketplace in 2013 to get smartphone customers hooked on the shopping site and to encourage data use. A subsidy "makes a lot of sense where data is still relatively expensive," says Courtney Munroe, an analyst at IDC.

Qualcomm's co-head of chips, Cristiano Amon, says the company has been encouraged by the early results of its work with Bradesco and the government in Brazil. "If you apply the same concept that you have with 1-800 calls to data, you can revolutionize the industry," Amon says. "I believe it has the potential to get adopted in many, many places." —*Ian King and Christiana Sciaudone*

The bottom line Bradesco, Qualcomm, and Brazilian officials are paying carriers to encourage smartphone use.

COURTESY PLANET LABS

Cybersecurity

Moving From Dot-Com To Not-Com

- Businesses begin trying to migrate customers to private Web domains
- Companies will be "potentially more in control of their own security"

There's a downside to the relative freedom and lack of gatekeepers on the Internet, including that most anyone can buy a Web address that ends in ".com." Online, scammers can pay $10 for an address that looks like that of your bank, your favorite clothier, or your auto dealer and create a site that looks enough like the original to trick you into buying phony merchandise or revealing your login and password. Every day, almost 1,000 Americans file some kind of identity-theft complaint with the U.S. Federal Trade Commission, and about 750 report being scammed by an impostor, as in a phishing scheme.

That's part of the reason hundreds of businesses, from **Google** to **Wal-Mart**, have paid $185,000 a pop to apply for the rights to Web domains that read, say, .google or .walmart. Companies buying these eponymous top-level domains from the Internet Corporation for Assigned Names and Numbers (Icann)—the nonprofit that runs distribution of domain names under the oversight of the U.S. Department of Commerce—will in theory be able to strictly limit who creates pages on them. Of the 1,930 applications for the new Internet real estate, 534 came from companies buying up their trademarks, according to Icann. Addresses that end in .com or .net will continue to be controlled by Reston (Va.)-based networking company **Verisign**.

534

Number of companies so far that have applied for domains using their trademarks

Companies such as **Chanel** and **Hermès** say self-branded domains will help them combat the sale of counterfeit goods from imitation websites. "These sophisticated criminal activities cause reputational damage to businesses as Internet users lose consumer confidence and trust," Chanel said in applying for .chanel. Companies filed applications in 2012, but contracts weren't due until this past July, so most not-coms aren't expected to roll out their new domains until later this year or next.

Barclays was an early mover, shifting its corporate home page from barclays.com to home.barclays in May. Troels Oerting, who heads the bank's security, said in a statement announcing the move that the new domain should make it "crystal clear to our customers that they are engaging with a genuine Barclays site." The more important customer-login pages haven't switched over yet, and the bank wouldn't disclose a target date.

Unsurprisingly, banks are especially interested in private, branded Web domains. **JPMorgan Chase** is awaiting Icann approval for .jpmorgan, .chase, and .jpmorganchase. They've also joined more than 5,500 companies in applying for .bank ▶

Innovation

Shazura

Form and function
While most image-search software finds photos using keywords or phrases, Shazura's binary system behaves more like the human brain, visually matching images that look the same with greater speed and efficiency.

Innovator Sira Pérez de la Coba

Age 37

Founder and chief executive officer of Shazura, a four-year-old startup in Madrid



1.

Conversion Upload a file, outline what you want to search for, and Shazura's algorithm converts the image to a lengthy "numeric signature" containing extensive descriptive information. The number for a willow, say, is distinct from that for a cypress, or a green bag from a blue one.



2.

Search By cutting out the intermediary translation steps, Shazura sifts through a customer's image database more quickly and accurately and uses less computing power than traditional search engines.

Shop the results







Origin Pérez de la Coba, an electrical engineer by training, began coding Shazura in 2011 out of frustration. She'd snapped a photo of a pair of shoes she wanted but had trouble finding them online with existing image-comparison services such as Google's.

Funding Shazura has raised $1.2 million from investors including Venezuelan media tycoon Gustavo Cisneros and former Warner Music Chairman Edgar Bronfman Jr.

Background Without having to rely on keyword tags or extensive if-then instructions, Shazura can make large-scale image searches much easier for government agencies, advertisers, or social networks, says Pérez de la Coba.

Early clients So far the 10-employee company has licensed its technology to clothiers El Corte Inglés and RichRelevance.

Next Steps

Shazura's search engine outmatches the industry's top-ranked models, according to computer science researchers at the University of Zaragoza. Pérez de la Coba says she plans to open an office this year in Silicon Valley, where she'll hire programmers to refine the technology and seek more customers. —*Rodrigo Orihuela*

addresses through fTLD Registry Services, an organization backed by the American Bankers Association and the Financial Services Roundtable that works to secure generic domain names for banks and insurers. This is a sort of middle ground between an eponymous domain name and a .com. These new dot-categories, including .coupons, .city, and .meme, leave some room for the speculators known as cybersquatters, who buy up addresses to sell later at a marked-up price, though the application price tag should dissuade all but the most determined.

Companies are betting that operating their own domains will be more secure because they're directly in control of the security and maintenance. The catch, says Ken Westin, an analyst with cybersecurity company Tripwire, is that they'll have to take more responsibility for oversight of their private domains than they did in Verisign's dot-com world. "They're more in control of their brand and potentially more in control of their own security," he says, adding that companies will need to make sure their domains' underlying network architectures are functional and secure, which they didn't before.

It'll take time to retrain customers who've been typing ".com" for 20 years to make the new addresses their defaults, says Westin, and the interim confusion could provide an opening to scammers. In any case, some of the Internet's security problems can't be solved with new URLs, acknowledges David Conrad, Icann's chief technology officer. Targeted attacks such as those against **Target** and **Home Depot** focused on weak spots in the underlying networks, like credit card readers, he says.

Icann's own record on cybersecurity makes clear just how difficult it can be. The naming organization announced on Aug. 6 that its own website had been hacked and encrypted usernames, passwords, and e-mail addresses had been stolen. Icann declined to comment on the hack or on a December phishing attack that compromised its e-mail servers and internal network. —*Rachel Adams-Heard*

The bottom line Eponymous private domains aren't a cybersecurity cure-all but may help foil some phony merchandise or phishing scams.

Edited by Jeff Muskus
Bloomberg.com

COURTESY SHAZURA (2)

1993

Bill Clinton
Founder, Clinton Foundation
42nd U.S. President

1997

Eileen Fisher
Founder & President
Eileen Fisher, Inc.

2001

Howard Schultz
Chairman & CEO
Starbucks

2008

Jeffrey Immelt
Chairman & CEO
GE

2011

Al Gore
Former U.S. Vice President

2012

23 YEARS GATHERING THE WORLD'S MOST INFLUENTIAL SUSTAINABILITY LEADERS

2013

Mary Robinson
President
Mary Robinson Foundation
– Climate Justice

2014

Indra Nooyi
Chairman & CEO
PepsiCo

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2015



Denise Morrison
President & CEO
Campbell Soup Company



Henri de Castries
Chairman & CEO
AXA

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August 31 – Se 2015

A Love That Will Last Forever



A Diamond Made in 10 Weeks

▶ Microwaved stones—no dirty mines or bloody conflicts—might be a girl's next-best friend

▶ "If they get a diamond from above the ground or in the ground, do they really care?"

The 2.62-carat diamond Calvin Mills bought his fiancée in November is a stunner. Pear-shaped and canary-yellow, the gem cost $22,000. A bargain. Mills, the chief executive officer of CMC Technology Consulting in Baton Rouge, La., says he could have spent tens of thousands more on a comparably sized diamond mined out of the earth, but his came from a lab. "I got more diamond for less money," says the former Southern University football player, who proposed last year at halftime during one of his alma mater's games at the Superdome in New Orleans.

While man-made gems make up just a fraction of the $80 billion global diamond market, demand is increasing as buyers look for stones that are cheaper—and free of ethical taint. Human-rights groups, with help from Hollywood, have popularized the term "blood diamonds" to call attention to the role diamond mining has played in fueling conflicts in Africa.

Unlike imitation diamonds such as cubic zirconia, stones that are "grown" (the nascent industry's preferred term) in labs have the same physical characteristics and chemical makeup as the real thing. They're made from a carbon seed placed in a microwave chamber with methane or another carbon-containing gas and superheated into a glowing plasma ball. That creates particles that crystallize into diamonds, a process that can take 10 weeks. The technology has progressed to the point that experts need a machine to tell synthesized gems apart from those extracted from mines or rivers.

45%

North American consumers from 18 to 35 who say they prefer natural and untreated diamonds

Retailers including **Wal-Mart Stores** and Warren Buffett's **Helzberg Diamonds** are beginning to stock the artificial gems. "To a modern young consumer, if they get a diamond from above the ground or in the ground, do they really care?" asks Chaim Even-Zohar, a principal at Tacy, an industry consulting firm in Ramat Gan, Israel. In a survey by Gemdax, an Antwerp-based consultant, only 45 percent of North American consumers from 18 to 35 said they prefer natural diamonds. "Some substitution for natural diamonds is inevitable," says Anish Aggarwal, a partner at the firm, which wouldn't disclose who paid for the study. Gemdax says more research is needed to better gauge consumer attitudes.

The companies that dominate the market for natural gems, including Russia's **Alrosa** and **De Beers**, a unit of London-based Anglo American, don't see the upstarts as much of a threat, because "it's such a small fraction" of the market, says Neil Koppel, the CEO of **Renaissance Diamonds**. His lab, in Boca Raton, Fla., is supplying Helzberg stores in 10 U.S. cities. Last year only about 360,000 carats of man-made diamonds were produced, compared

FROM LEFT: GETTY IMAGES; COURTESY IIA TECHNOLOGIES



IIA's diamond lab

Leaving Wall Street for greener pastures—in Cleveland 36

Bid/Ask: AGL plugs into Southern; Oshkosh goes to war 37

with 146 million carats of natural gems mined in 2013, estimates researcher Frost & Sullivan. The supply of lab-grown stones will probably jump to 2 million carats in 2018 and 20 million by 2026.

De Beers says its research shows consumers don't equate synthetic gems with ones from a mine, adding that the artificial stones are more likely to compete with costume jewelry. "The value of a diamond is inextricably linked to the inspirational and unique narrative that lies behind each one, from its formation to its history to its emotional significance, which lab-grown diamonds simply don't have," the company said in a statement. In July mining companies won a major marketing victory when the International Organization for Standardization ruled that man-made gems must be called synthetic, lab-grown, or lab-created—not real, cultivated, or cultured.

The manufactured variety accounts for about 5 percent of stones sold at the **Gem Lab**, a New York jewelry store. A 1-carat synthetic diamond fetches about $6,000 there, compared with $10,000 for a similarly sized natural stone, according to Vice President Paul Cassarino. Singapore's **IIA Technologies**, the biggest producer of lab-grown diamonds, is asking $23,000 for a 3.04-carat diamond it synthesized; a mined gem of similar size and quality would cost about $40,000. "We are creating a new industry," says Vishal Mehta, the CEO of IIA, which doesn't disclose how much it costs to make a diamond in the lab. "Consumers today really resonate with the idea of an eco-friendly and a conflict-free choice for diamonds. That's been a sticking point."

Danny Decker, who works in marketing at Harlo Interactive, a digital agency in Portland, Ore., plans to propose to his girlfriend of four years with a 1-carat lab-grown diamond in a white-gold setting. He purchased it for about $7,000 from **MiaDonna**, a local retailer that specializes in what it calls "conflict-free engagement rings." Decker says his choice was influenced by the movie *Blood Diamond*, a 2006 film starring Leonardo DiCaprio set in Sierra Leone. "The whole idea of diamonds—where they come from, how they are mined, what that does to the earth, and the whole idea of conflict diamonds—it was something I just didn't want to be a part of," he says. "At the end of the day, I wanted to do something that was good for the environment, that was cause-based." —*Hannah Murphy, Thomas Biesheuvel, and Sonja Elmquist*

The bottom line The output of man-made diamonds is less than one-quarter of 1 percent that of natural stones, but demand is growing.

Insurance

The UAW Benefits Failure That Wasn't

- A health plan for retired autoworkers is a surprising success
- "The fund has accomplished some really impressive things"

The experiment looked doomed at the start. Five years ago, **General Motors**, **Ford Motor**, and **Chrysler**, with the blessing of the United Automobile Workers union, created an independent entity to provide health insurance for more than 700,000 retirees and to manage the investments that would finance the benefits. The move was good for the automakers, allowing them to shed crushing liabilities that threatened to impede their recovery amid the Great Recession. The conventional wisdom was that the trust fund would quickly run low on money and ask union retirees to cough up large annual premiums or settle for more limited coverage. "People didn't believe the math worked," recalls Art Schwartz, GM's labor negotiator at the time.

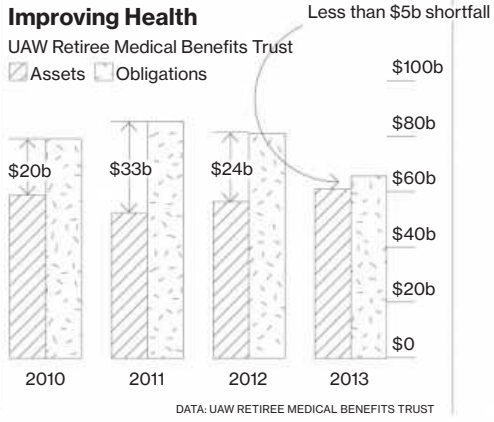
Contrary to expectations, the $61 billion UAW Retiree Medical Benefits Trust is thriving. Retirees' drug costs are falling; dental, vision, and other benefits have even been added. What's more, the investment fund that pays for all of it has booked double-digit annual returns in recent years. "A lot of people thought this wouldn't hunt," says Fran Parker, who came out of retirement in 2010 to run the trust. Parker, who previously headed a large health plan in Michigan, said in a July 10 interview that she relished the challenge. "I thought, Oh dear, I'm going to take care of the same people that I took care of when they were active. What a fitting bookend."

Under Parker, the UAW trust, which is the largest private purchaser of medical care in the U.S., is forging paths in benefits management and emerging as a corporate-governance advocate. "The fund has accomplished some really impressive things," says Harley Shaiken, a labor professor at the University of California at Berkeley, adding that there are lessons for other plans in how the trust's managers have reduced costs by remixing coverage and pushing preventive services.

Skeptics had predicted health-care inflation would continue to run at 3 percent to 5 percent a year, outpacing returns on investments. Fortunately for the trust's managers, that inflation rate has been relatively low, a little less than 3 percent last year.

Parker, a self-professed "big-data geek," has beefed up coverage for preventive care and used analytics to pinpoint areas where costs could be better managed. In the past, routine doctors' appointments weren't covered, so retirees flooded urgent-care centers and emergency rooms when they fell ill. After administrators discovered that 400 retirees a month are newly diagnosed with diabetes, the plan began paying for programs that teach them how to contain the disease by changing habits. Coverage has also been added for cardiac rehabilitation for heart attack patients, for blood pressure ▶

Improving Health



DATA: UAW RETIREE MEDICAL BENEFITS TRUST

◀ screenings, and for programs to encourage people to buy lower-cost generic drugs. Annual pharmacy savings of about $500 million helped pay for dental and vision coverage.

The trust has $61 billion in assets under the direction of interim Chief Investment Officer Avtar Vasu, who used to be part of the team managing Harvard's endowment. Investment performance has exceeded expectations, with gains of 14 percent in 2013, the most recent data available. That's almost triple that year's returns for pension funds at Ford and GM.

Meredith Miller, the trust's corporate-governance chief, previously worked in the Connecticut treasurer's office, where she helped thwart a plan by toolmaker Stanley Works (now Stanley Black & Decker) to quit the state and incorporate in Bermuda. In her current role, Miller leads a group of institutional investors that's urging **Wal-Mart Stores** and others to be more forthcoming about when and how they force executives to return bonuses earned for actions later determined to be illegal or unethical. A trust proposal to make it easier for stock owners to appoint directors was endorsed by **McDonald's** shareholders in May.

Miller also helms the Human Capital Management Coalition, a group of 24 funds with more than $2.3 trillion in combined assets that focuses on how companies develop policies on safety, diversity, and fair labor practices. Since 2010 the UAW trust has been on a letter-writing campaign to press companies in which it has stakes to add women to their boards, Miller says, because of growing evidence that diversity at the top improves the bottom line. Four of the 34 companies it's reached out to so far, including **CF Industries Holdings** and **Visteon**, have added female directors.

Overall, the UAW's experiment with the fund has been so successful that union President Dennis Williams is suggesting a similar arrangement for about 195,000 active autoworkers at GM, Ford, and Fiat Chrysler Automobiles as part of negotiations for a labor contract now under way.

One doubter who's been happily proven wrong is Jim Kaster, who retired in 2007 from GM's assembly plant in Lordstown, Ohio. "We were scared to death when they were going bankrupt. We thought it was really going to be tough for us and our families, because we'd seen what happened at other companies," recalls the 68-year-old. "I'd say now we're tickled to death about how it's turned out. They're doing a good job." —*Jeff Green and David Welch*

The bottom line The UAW's $61 billion health trust for retirees has logged double-digit returns in recent years.

Recruiting

Bankers Relish Big-Fish Roles in Smaller Ponds

- Regional lenders are raiding Wall Street for experienced execs
- They "don't have a deep bench of people with those skills"

Wall Street banks have been losing talent to hedge funds, buyout firms, and technology companies. Now they have new competition for recruits: smaller lenders in Ohio, Rhode Island, and other states outside the financial establishment.

About half the new hires for senior-level openings at midsize regional banks are people whose résumés list institutions such as Citigroup and JPMorgan Chase, says Robert Voth, a managing director in the financial-services group at **Russell Reynolds Associates**, a recruiting firm. The share was about a fifth before the 2008 credit crisis.

> **"This is about being part of a real turnaround. At a midsize bank, you're closer to the businesses."** ——*Eric Aboaf, chief financial officer, Citizens Financial Group*

Although regional banks can't match the potential compensation that investment companies and Silicon Valley offer, they're highly motivated hunters. They must adapt quickly to new regulations, technology, and competition from online startups, so they have to look for candidates from companies in the vanguard of the industry, recruiters say. "Regional banks don't have a deep bench of people with those skills," Voth says, "so they often have to look upstream."

Terry Katon, who heads the capital markets unit at **Regions Financial**, in Birmingham, Ala., says he hires mostly from global banks. Once someone joins from a big company, former colleagues are more likely to follow, says Katon, who was at Bank of America before joining Regions in 2009. Four of his five product chiefs are from much larger rivals. "We are able to sell them the story of building something at a newer platform at an institution that is not as well developed in their area," he says. "People are very eager to find something new."

In interviews, more than a dozen senior-level defectors cited a variety of reasons for moves in the past two years: the chance to influence big decisions without being overwhelmed by bureaucracy; the desire to play the hero in a turnaround; and the need for a better work-life balance. Executives wouldn't specify their pay, but several described it as competitive. While compensation is often the key lure in filling investment banking positions, recruiters say bankers in other lines of business typically consider a variety of factors when weighing whether to jump ship.

Quoted

"They make a fortune, they pay no tax.... The hedge fund guys are getting away with murder."

Republican presidential candidate **Donald Trump** during an Aug. 23 appearance on CBS



GETTY IMAGES

After 16 years at Goldman Sachs, Maria Teresa Tejada says it became clear she wasn't going to clinch one of the firm's coveted partnerships. A managing director in London's risk underwriting group, Tejada didn't interact with many of the firm's New York-based leaders, and her work within a team made it difficult to show how much she contributed to the bottom line. She also struggled to find a mentor to advise her on navigating the partner process.

Now, as chief credit officer at **KeyCorp**, based in her hometown of Cleveland, Tejada has the accountability and decision-making role she craved. Moving from London's pricey South Kensington neighborhood to Cleveland's more affordable Shaker Heights added a benefit she hadn't expected: "We could give our daughter a better life. She could ride her bike to school and spend time in the outdoors."

Eric Aboaf's job at Citigroup was anything but boring. Just months before naming him treasurer in 2009, the bank took a $45 billion bailout to survive the financial crisis. For five years, he was in charge of making sure cash flowed as the company slashed assets, simplified operations spanning more than 160 countries, and repaid taxpayers. "We put Citi back on its feet, and I felt like in some ways I had accomplished a lot—so what's next?" he says.

The answer was building something. **Citizens Financial Group** Chief Executive Officer Bruce Van Saun enlisted him this year as finance chief to help the Providence lender expand after it was spun off from the struggling Royal Bank of Scotland Group. "This is about being part of a real turnaround," says Aboaf, who started his new job in April. "At a midsize bank, you're closer to the businesses."

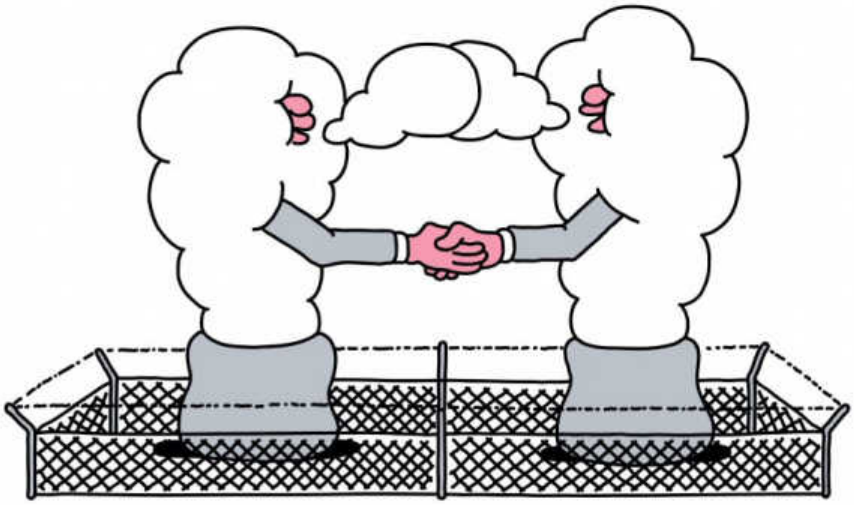
Van Saun says that after last year's spinoff, his bank needed to quickly find its sea legs as a publicly traded company. "Getting a couple of folks in high-profile roles who understand that and can help impart that into our culture I think is going to be very valuable," he says. —*Elizabeth Dexheimer*

The bottom line Half of recruits at midsize regional banks are coming from big Wall Street firms, up from just a fifth before the crisis.

Edited by Cristina Lindblad
Bloomberg.com

Bid/Ask

By Kyle Stock



$12b

Southern Co. swallows AGL Resources, in an all-Atlanta deal. The third-largest utility in the U.S. will rise to No. 2 with its purchase of the natural gas distributor. The transaction will add 4.5 million electricity customers, bringing Southern's total to 9 million, and help speed its transition away from coal, which is facing tighter regulations.

$14.8b **Schlumberger to buy Cameron International.** The largest oilfield servicer will acquire a maker of drilling equipment, as falling oil prices drive consolidation.

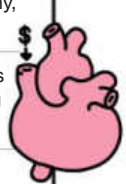
$9.4b  **Wirecard bids for Worldpay.** The German payments processor joins the contest for a U.K. rival that's preparing for an IPO while being wooed by private equity.

$6.8b **Oshkosh to replace Humvees.** As the Pentagon mothballs its troop truck, it's tapping the Wisconsin-based company to make an alternative. The first order calls for 17,000.

$2.7b **Sycamore Partners shops Belk.** The private equity owner of the 127-year-old store chain wants it to retain its Charlotte headquarters and chief executive officer.

$768m **Mitsubishi Electric plugs into Delclima.** The Japanese group struck a deal for 75 percent of the Italian company, known for its energy-saving air conditioners.

$458m **Medtronic snaps up a cardiac startup.** The company is buying Silicon Valley-based Twelve, which is developing a device to repair heart valves.



$138k  **An Ernie Banks jersey sells at auction.** The Chicago Cubs infielder wore the shirt during his 32-home-run 1968 season. The Hall of Famer died in January.

BID/ASK ILLUSTRATION BY OSCAR BOLTON GREEN

NO FARE

THE WRATH



BY SIMON VAN ZUYLEN-WOOD

OF THE TAXI KING



PHOTOGRAPHS BY JONNO RATTMAN

Gene Freidman owns more cabs than anyone else in New York City

Gene Freidman's got a new hairdo. For as long as the New York tabloids have been taking photos of him, which is to say a while, Freidman has worn his hair in a ponytail. It is, along with the Euro scarves and Bono sunglasses, something of a trademark. Today, though, sitting in a courtroom in Lower Manhattan, he's opted for a close crop. "Just, you know, this new beginning of getting f---ing divorced, you know?" he explains. "So I was like, f--- it, let me get a haircut."

A new beginning would be nice. On this late June afternoon, Freidman, 44, is in New York City criminal court to defend himself against charges that he harassed and attempted to assault his soon-to-be-ex-wife, Sandra. There are also related allegations concerning some forged signatures and a smashed watch. Oh, and his taxicab empire is faltering.

Freidman doesn't seem overly stressed. He's wearing a blue pinstripe suit and monogrammed cuffs. He gives off a whiff of cigarette. He denies the forgery claim, the assault claim, and every other claim lobbed at him today. "Listen, listen, listen," he says during a break in the proceedings. "I'm not worried about it. If you read the papers, right, and you see what's going on, I might as well already be dead."

According to the city, the Taxi King controls 860 cabs (Freidman says he actually operates more than 1,100). That's more than anyone else in town. Factor in the hundreds of vehicles he has in Chicago, New Orleans, and Philadelphia, and he's almost certainly the most powerful taxi mogul in the country. Freidman makes money by leasing the cabs to drivers on a daily or weekly basis.

To own a cab in New York, you need a medallion—a metal shield displayed on the vehicle's hood—and there are a fixed number issued by the New York City Taxi & Limousine Commission (TLC). Until very recently, medallions were a good thing to have a lot of. In 1947, you could buy one for $2,500. In 2013, after a half-century of steady appreciation, including a near-exponential period in the 2000s, they were going for $1.32 million.

Then came Uber. Since the arrival of the car-by-app service, valued at about $50 billion, taxi ridership is down, daily receipts have declined, and drivers are idling—or going to work for Uber. Add it up, and desperate medallion sellers are trying to fob off their little tin ornaments for as little as $650,000.

This has had a profound effect on Freidman, whose net worth appears to be in free fall. In March, Citibank moved to foreclose on 90 of his medallions, claiming it was owed $31.5 million in unpaid loans. Later, he settled with Citibank on half of the medallions, but 22 of Freidman's companies owning the other half filed for bankruptcy. (Freidman, like many taxi owners, stashes his medallions in two- or three-taxi "mini-fleet" corporations. He likes to give them colorful names: Vodka Taxi, Butterfly Taxi, Pinot Noir Taxi, and many others.) By early July, a judge was ordering him to fork over $8 million in delinquent payments to Capital One. Then four of his companies landed on New York state's tax deadbeat list, not far behind convicted cigarette smuggler and No. 1 delinquent Salah Morshed. Finally, in August, Freidman reversed course and admitted to pushing his estranged 25-year-old wife into a wall. He avoided jail time but was ordered to have no contact with Sandra for two years.

He's a man under siege, he says. "What was that movie with Jim Carrey where he was trapped in that world?" he asks, referring to *The Truman Show*. "There's a point where you say, you know what, they ripped a hole through the window, my little dog caught a bullet, like f--- you. I'm gonna pick up guns, and I'm gonna defend myself."

There are 13,587 yellow cabs in New York City. That's not many more than there were when the modern taxi industry was born almost 80 years ago. During the Depression, thousands of jobless men became taxi drivers. As a result, the number of cabs ballooned, and suddenly there weren't enough passengers to scoop up. The industry became as hopelessly unprofitable as any other. So in 1937 the city created the medallion system that remains in place today. Until 1996, the number of medallions in circulation remained exactly 11,787.

Because the system artificially depressed supply, taxi drivers stayed busy and medallions became more valuable. Which explains why cab ownership often equaled middle-class stability for men like Naum Freidman. In the mid-1970s, Freidman moved his wife and 5-year-old son from the Soviet Union to Jackson Heights, Queens, eventually becoming a cab driver and presiding over a 55-car garage. "For $25, you could get a hack license without going to school," says Gene, relating his father's story. "Before that, there was a movie theater; that was the first job he got, cleaning toilets. I mean, you know, it's almost from a book."

At 8 a.m. on the Fourth of July, we meet at Harry Cipriani in the Sherry-Netherland, a stately Central Park hotel where rooms go for $450 a night. The spot is Freidman's choice. He eats a monochromatic breakfast of cottage cheese and oatmeal. We're the only customers here. The contrast between his lifestyle and his father's is not lost on him.

"Every day that I wake up, you know, I'm like, this is great," Freidman marvels. "You know, I live on Park Avenue, got a bunch of, like, Ferraris that I drive. I have a house in the south of France. I can have breakfast, like, at Cipriani. And it's like, you know, pinch me. Is this real? I'm fresh off the boat!"

Freidman attended the Bronx High School of Science and Skidmore College, where he says he partied a lot and "got kicked out for a semester for overexcessive parking tickets." He then

Updating a taxi with a new meter and a touchscreen monitor





Some of Freidman's taxis in Long Island City, Queens

went to the Cardozo School of Law at Yeshiva University. Post-law degree, Freidman worked for Sam Zell as a financier in Yeltsin-era Russia, eventually returning home in 1996, taking control of his father's fleet and applying his newfound investment savvy to the "retarded"–his word–taxi industry.

Freidman began buying up his many medallions amid frequent industry clashes with taxi bogeyman Rudolph Giuliani. But it was Giuliani's successor, Mayor Michael Bloomberg, who truly began to threaten yellow cab hegemony. (Bloomberg LP, which owns *Bloomberg Businessweek*, is run by Mike Bloomberg. The company also is an investor in the venture capital firm Andreessen Horowitz, which invests in the ride-sharing service Lyft.)

Freidman's first big fight with Bloomberg occurred in 2005, when he sued the city to introduce hybrid vehicles to the fleet. Later that year, the hybrids hit the road.

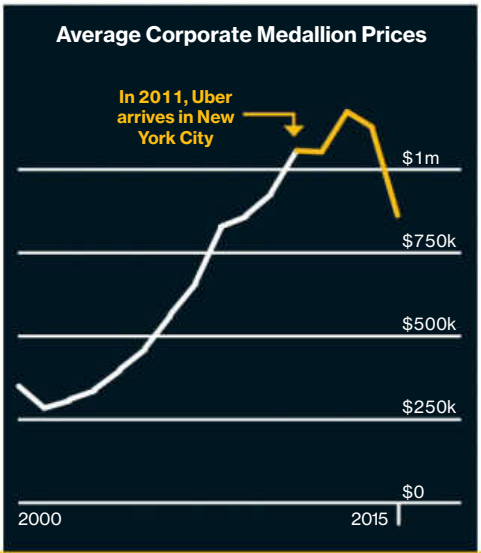
Seven years later came Bloomberg's introduction of green cabs designed primarily to reach the underserved outer boroughs. Prohibited from picking up customers in Manhattan's central business district, they were nonetheless despised by the yellow cab industry. Freidman sued, contending the new law allowing green cabs was unconstitutional. The courts ultimately disagreed.

Around the same time, the mayor announced a plan to replace the entire fleet with the Nissan "Taxi of Tomorrow." Freidman again sued, claiming, among other things, that the Nissan was neither wheelchair-accessible nor a hybrid. "He's pretty bold, and he's got some guts to go against the Establishment," says Matt Daus, TLC chairman from 2001 to 2010.

In May 2013, Freidman told the *New York Post* he had innocently approached the mayor during a New York Knicks game at Madison Square Garden to discuss the Taxi of Tomorrow, at which point, according to him, Bloomberg responded, "Come January 1st, when I'm out of office, I'm going to destroy your f---ing industry." Through a spokeswoman, Rebecca Carriero, Bloomberg declined to comment on the alleged incident.

That year, Freidman sued the city again–and this time, Bloomberg personally–claiming that Bloomberg, in retaliation for Freidman's opposition to Taxi of Tomorrow, "imposed one illegal directive after another upon the taxi industry in what became nothing short of a vendetta." In litigation, Freidman contends the vendetta includes attorney general scrutiny and the Citibank foreclosure.

"I'm an immigrant to this country," Freidman says, when I ask him about his beef with the former mayor. "I don't get things shoved up my ass. This is why I came here. You know, I'm an attorney. There's a thing called due process." (In case the taxi thing falls through, Freidman is licensed to practice law in New York and New Jersey.) For good measure, he adds that Bloomberg has a "known popcorn addiction" and was eating a lot of it that night at the Garden. Bloomberg's three-word response: "No argument there."



All this helps explain why Freidman's PR guy, Ronn Torossian, didn't want his client to talk to *Bloomberg Businessweek*. "Gene did this against my advice as I am convinced ur gonna f---him," Torossian wrote in an e-mail from Freidman's second home, in Saint-Jean-Cap-Ferrat, along the French Riviera. Freidman and Torossian later stopped working together, but they say they're still friends.

Whatever threats the green cab or the Taxi of Tomorrow pose to Freidman, they pale beside Uber.

2015 DOLLARS. DATA: NYC TAXI & LIMOUSINE COMMISSION

The service made its debut in New York in 2011, but it wasn't until 2014 that Uber really began to poach yellow cab customers by lowering prices and expanding its fleet, from 7,000 to 16,000. (That number has since grown to more than 20,000.) Freidman, though, swears he welcomes the competitive pressure. "We live in a world of survival and preservation, right?" he says, rattling off his own app-based aspirations. "Uber's not a problem. Uber is pushing me, right? How can I get you someplace cheaper, quicker, more efficiently?"

Still, not long after Citibank sued, Freidman began agitating for a bailout, arguing that if his medallions teetered, so would the rest of New York's. Creditors seemed eager for a bailout, too. In April, he convened a nerve-soothing session for about 100 financiers and taxi industry pooh-bahs over beef and salmon at the New York Athletic Club. Ydanis Rodríguez, a city councilman, attended. "We should explore the possibility to pay restitution for those who value in that investment," Rodríguez said at the meeting. "That's what I have expressed to the mayor."

Bill de Blasio, who replaced Bloomberg in 2014, was poised to be Big Taxi's champion. Like a handful of other cab moguls, Freidman was one of de Blasio's major bundlers, raising $50,000 for his 2013 mayoral campaign. (Overall, de Blasio netted roughly 10 times that from the taxi industry.) De Blasio, in turn, emerged as a fierce opponent of the green cabs and the Taxi of Tomorrow. Considering green cabs were designed to serve the poorer neighborhoods de Blasio purported to represent, his opposition seemed hypocritical to many. (De Blasio didn't respond to a request for comment for this article.)

Not long after the luncheon at the Athletic Club, Rodríguez introduced a de Blasio-backed bill to cap the number of Uber vehicles on the road. In theory, the limit was meant to allow for a controlled environmental impact study about Uber's effect on congestion. It also appeared to serve another purpose. "I believe New York City has to study why the prices of the medallions have gone down in the last couple years," Rodríguez later told me. "We need to be sure the value of the medallions didn't go down because a particular sector of the industry came without following the same rules and regulations."

When I asked Bradley Tusk, an Uber consultant (and Bloomberg's 2009 mayoral campaign manager), about the bill in early July, he all but conceded defeat. "The mayor, the speaker, the chairman of the committee," he said, rattling off the cap's backers. "I think it probably will pass."

But it didn't. Uber's July lobbying and advertising blitz was exhaustive—the company spent an estimated $3 million on media buys—and the administration eventually settled for a fairly toothless compromise in which Uber would send the city a bunch of data and succumb to a study. "We met with council members and we met with leaders," says Ethan Gerber, who with Freidman runs a trade group called the Greater New York Taxi Association. "But you know, wherever you go, there are five lobbying firms who have been there before you."

Matt Wing, an Uber spokesman who once worked for de Blasio, says it's hard to take these charges seriously. "Gene Freidman and millionaire medallion owners gave politicians campaign contributions to influence government policies. When the cap was put forward by the taxi industry and then picked up by the same politicians, we were compelled to respond," he says.

The day the cap was defeated, 22 of Freidman's companies, owning 46 medallions, filed for bankruptcy. It was, he said, "a power move."

After breakfast, Freidman walks two blocks east to his temporary digs at Trump Park Avenue on 59th Street. (Sandra is occupying the $4.8 million master residence six blocks north.) After he retrieves a Chihuahua named Harry from upstairs—he signs his e-mails "Yes I Am a Dog Lover" or "adopt-a-pet.com"—the plan is to hop into his Ferrari and zip over to one of his several garages in Queens. Not that he wants that written: "Honestly, I would love the piece not to be about 'We had breakfast at Cipriani, then we walked over to his Park Avenue apartment, then we got into his Ferrari.'"

Are Freidman's business troubles explained by disruption of the yellow cab industry? Uber's upending of the taxi market is the single biggest factor that explains the drop in ridership and medallion values, as well as the rise in frozen credit and loan delinquencies. But almost every taxi industry player I've spoken to has been intent on distinguishing Freidman from the rest of the medallion owners. "He is 100 percent not representative," says Tweeps Phillips, the executive director of another trade group, the Committee for Taxi Safety. "Gene is an issue all unto himself. His issues are his making."

What they're getting at is this: If Uber is chiefly responsible for driving down the price of taxi medallions, Freidman played a big role in driving it up in the first place. Allow him to explain his strategy: "I'd go to an auction, I'd run up the price of a medallion, then I'd run to my bankers and say, 'Look how high the medallions priced! Let me borrow against my portfolio.' And they let me do that."

Freidman says his father is the kind of fellow who believes "your houses and your cars have to be paid off." His philosophy has been the opposite. According to the Citibank bankruptcy filing, Freidman's companies owe roughly $750,000 on each Citibank medallion. That's fine if you're regularly outperforming the country's major stock indexes, as medallions had been for decades. It's less ideal when medallion prices drop to around, say, $750,000.

There are parallels between the medallion bubble and the housing bubble of the mid-2000s: way-easy credit, credulous borrowing, everybody in debt. Freidman, in asking for a bailout from the city, even compared himself to too-big-to-fail American International Group. But he'll take the comparison only so far. Ask him about the lawsuits and the missed payments, and he'll tell you Citibank, Uber, and Capital One are in bed together. (He just sued Capital One, citing a credit card promotion it struck



Medallions went from $2,500 in 1947 to $1.32 million in 2013



2015 DOLLARS. DATA: BLS



Freidman's take on Uber is: "I make money. They lose money"

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with Uber.) The self-made Freidman, by contrast, is forever outer-borough, forever scrappy.

"Maybe this is the wrong visual, this is where Ronn is kicking me under the table," he says, before pressing on with his second firearm metaphor of the day. (Torossian, alas, is not around.) "Like, there's a guy in Appalachia, no shirt, hasn't had a shirt all winter, right? He's got a mullet. A mullet. A mullet. Right? He's married to two of his first cousins, right? But he's got a gun in his hands. And he's born with a gun in his hands. I'm that guy."

The underdog narrative, however, clashes not only with Freidman's overleveraged market position but also with the iffy relationship he has with his own drivers. "He's definitely been the worst player," says Bhairavi Desai, head of the New York Taxi Workers Alliance. "He was irresponsible with the drivers, and he was fiscally irresponsible with the medallion management." In 2013, Freidman settled a lawsuit filed by New York state in which he agreed to pay back his drivers $750,000 in overcharges. This summer, Attorney General Eric Schneiderman sued him again, claiming Freidman hadn't fully compensated his drivers yet. (About the first Schneiderman lawsuit, Freidman says he never admitted wrongdoing. About the second, he says it was a matter of not properly entering numbers into a spreadsheet.)

The garages in Queens aren't scoring a ton of venture money these days. But the bulk of cabs aren't mom and pop operations, either. Fifty-eight percent of New York City's cabs are owned by corporate entities such as Freidman's. Just a third are owned by the people who drive them. As a result, most taxi drivers and Uber drivers find themselves in the same boat–working as independent contractors, logging brutal hours.

The irony, Desai says, is that between labor disputes and contempt for municipal regulation, Freidman isn't so different from his rival, Uber Chief Executive Officer Travis Kalanick. "They're very similar," she says. "That's the story you should write."

If the consensus is that Freidman is a phenomenon unto himself and not necessarily a harbinger of industry doom, might the yellow cab survive its battle with Uber? Ex-TLC Chairman Daus is bullish. "To the extent that the media is reporting so much about him," Daus says, "you could argue that the way he's perceived…does have an impact." Skittish bankers read the paper, liquidity dries up, and taxicab Armageddon becomes a self-fulfilling prophecy.

Daus does concede some grim statistics. From June 2013 to June 2015, monthly New York City Uber ridership increased tenfold, to 3.5 million. Over the same period, monthly taxi pickups dipped from 14 million to 12 million. Still, Daus says, average tips and fares are up. More significantly, New York City medallion transactions over the last year have taken place mostly among friends and family members, rather than on the open market. "This is the primary reason for the reported price decline, and it is artificial," Daus wrote in the April issue of *Taxi Insider*.

The Taxi King, for his part, can be a little schizoid when it comes to apocalypse talk. On the one hand, Kalanick is his "best friend," his silent partner in the relentless pursuit of innovation. On the other, Uber is the "nastiest, most morally corrupt company ever." One moment, Freidman wants a bailout; the next, he's articulating a convincing case that Uber's dominance isn't guaranteed, either. "I make money," he points out. "They lose money." (According to Bloomberg News, Uber is generating an operating loss of $470 million, vs. revenue of $415 million. "These are substantially old numbers that do not reflect business activities today," says Uber's Wing, declining to provide other numbers.) Medallions may be falling in value, but they're still generating steady income for their owners.

After 30 minutes or so of traffic-free Independence Day driving–first to his Manhattan offices, not far from Uber's new Hudson Yards headquarters, then to Queens–we pull up to Freidman's main garage. Observed ephemera: a framed Shaq jersey, a Larry Johnson bobblehead, and a snow globe with a middle finger in it.

After counting a bunch of cash, Freidman settles into a chair and concedes that Uber has some worrisome advantages over the yellow cab: They're allowed to hike fares at will and aren't subject to wheelchair accessibility rules. "I stopped going to City Council," he sighs. "They have made themselves irrelevant." Freidman says he's working on bringing an e-hail app to his New York cabs, but so far it's a rival taxi mogul who's gotten there first.

And then there's the matter of personality, which he's working on as well. "If anything is wrong, it's the fact that I need to cool it," he says. "I can't be such an arrogant prick." B

Dead taxi meters in Freidman's Long Island City garage





The infuriating technology and perverse economics of Gogo's in-flight Internet

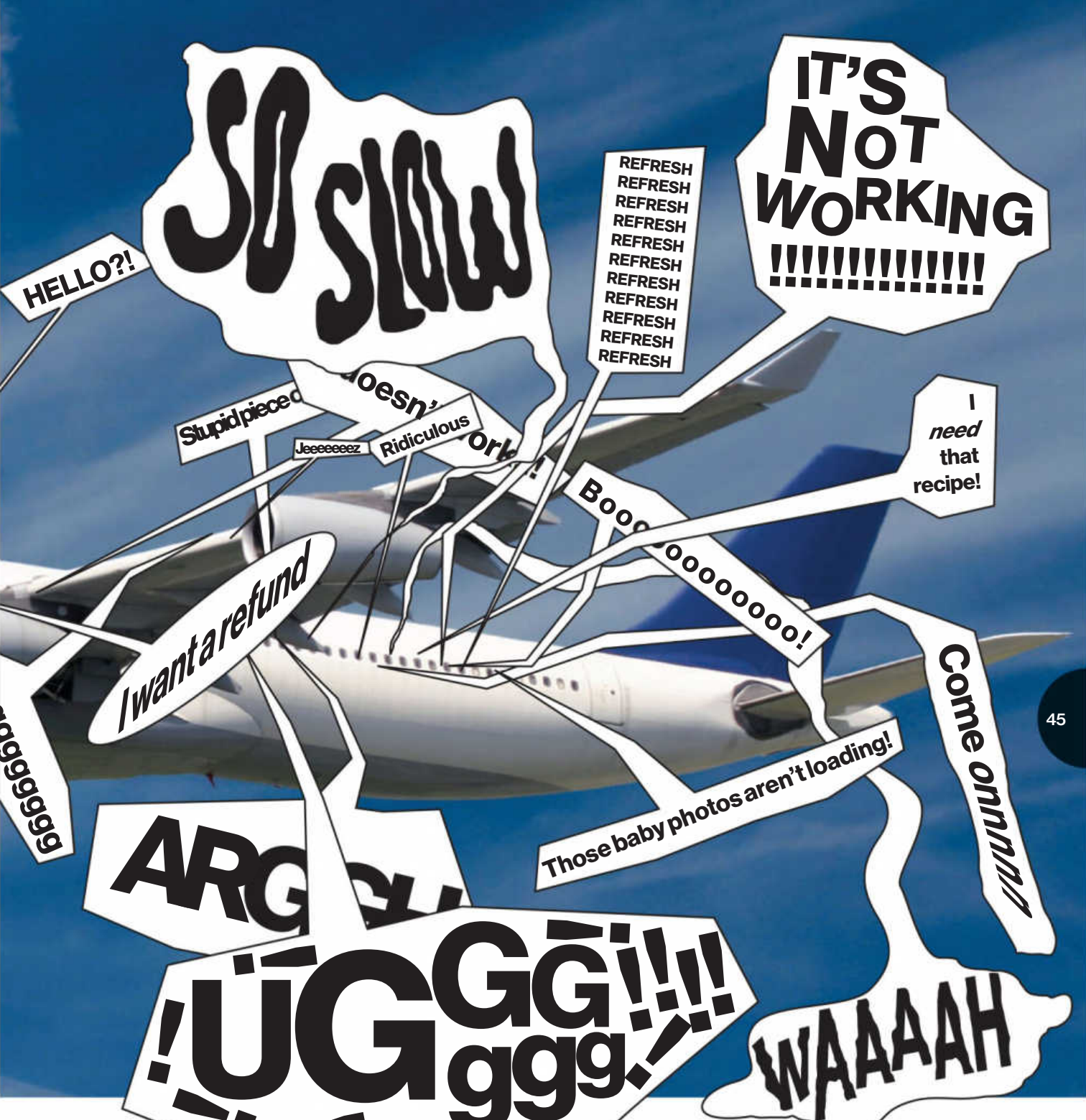
By Sam Grobart

In the fall of 2008, Louis C.K. was a guest on *Late Night with Conan O'Brien* and delivered a soon-to-be-viral rant called "Everything's Amazing and Nobody's Happy." It was about how we live in a time of mind-blowing technological achievement, and all we do is complain about it. His main source of amazement was–again, this was seven years ago–airplane Wi-Fi. He recounted his experience with it, how incredible it was to watch YouTube while soaring above the clouds, and how the network broke down minutes after passengers started using it. "The guy next to me says, 'This is bulls---,'" Louis tells O'Brien. "Like, how quickly the world owes him something he knew existed only 10 seconds ago!"

It's a clip Michael Small knows well. "Oh sure," he says. "That's huge around here." Small is the chief executive officer of Gogo, the largest in-flight Internet provider in the U.S. You might think an old comedy bit about in-flight Wi-Fi would be charmingly quaint; that most of the kinks would have been worked out by now and service would be fast and reliable. But you don't think that. If you've flown for work on a major U.S. airline over the past five years, you've probably used Gogo, and "fast and reliable" are probably not how you'd describe it. More like "hell-sent and extortionate."

Since pioneering the in-flight Internet business, Gogo has dominated, commanding about 80 percent of the market. And as often happens with near monopolies, Gogo has become a name people love to hate. "So, Gogo is officially a joke at this point, right?" is the title of a well-commented-on

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thread on the road warrior site FlyerTalk. "They've got a monopoly, and they just don't care," says pharmaceutical executive and frequent flyer Keith Lockwood. "Once you have it, it's hard not to have it."

Gogo hasn't done itself any favors. Steadily increasing fees and deteriorating data speeds have further annoyed already cranky flyers. "The service is so unreliable at this point that I don't get a good enough ROI to spend $60 a month to maybe be able to download my e-mails," says health-care executive and former Gogo user Manuel Hernandez.

For years, customer perceptions that Gogo is basically Comcast at 35,000 feet didn't hurt the company's bottom line. Users were literally a captive audience, and if they didn't like the service, too bad, read a book. But for the first time since that Louis C.K. rant, Gogo has some serious competition. At least two companies–ViaSat and Global Eagle Entertainment (GEE)–are encroaching on its airspace, winning business by offering faster, cheaper connections that use satellites instead of cell towers. Gogo is launching its own satellite system that should come online by the end of the year. "We're going to create a great new future in aviation," Small says. "And as long as we keep making progress, the customers are going to hang with us."

In the late 1990s, Boeing began building a satellite network called Connexion that would provide Internet access on planes. The technology worked; people who tried it loved it; but Wi-Fi, even home

Wi-Fi, was new and there wasn't enough demand. Flights were still mostly downtime for business travelers–a few precious hours of unreachability. So the service muddled along, there for the taking but mostly unwanted, like a seat-pocket copy of *SkyMall*. Then came the airline industry collapse following Sept. 11. Boeing shut Connexion down in 2006.

Gogo, which started that same year, had much better timing. It's spent almost $1 billion developing onboard equipment and a network of transmission towers across North America. Back then, travelers in business class who needed to work used laptops or occasionally BlackBerrys or Palm Treos. A year later the iPhone arrived, and data-hungry smartphones soon became more or less a human appendage.

By 2008 it was clear that any airline worth its wings needed to offer some kind of in-flight connectivity, fast. Gogo had the cell towers and the FAA-approved onboard antennas and servers to make it happen. "Airlines didn't want to do this organically," says industry analyst George Hamlin. "Here comes somebody with a system in place, and you had to have it or people would leave."

The first airline to sign up was American, which added the service to its transcontinental routes. With no competition to speak of, Gogo quickly expanded to Delta, United, Virgin America, Alaska Air, and Air Canada. Today, the company provides service on more than 2,000 commercial aircraft. It employs almost 900 people and had revenue of $409 million in 2014, up almost 25 percent from the previous year.

But demand for in-flight wireless has far outpaced capacity. Gogo's CEO isn't ignorant of customer dissatisfaction. "One of the reasons we get a bad rap out there sometimes is people compare what we do in the sky to the ground and just wonder why isn't it the same," Small says.

What Gogo does in the sky is, indeed, different from what wireless companies do on terra firma. It uses an air-to-ground system that functions similarly to traditional cell service, but its radio towers point up, not down. Gogo's towers are anywhere from 50 to 200 feet tall and can be located in rather remote locations, such as atop peaks in the Rocky Mountains or deep in the Alaskan tundra. The tower signal is received by a device on the plane's belly that looks a bit like those antennas you used to see on stretch limos. The signal is routed to an onboard server about the size of an old-fashioned tower PC and then continues to the cabin.

"There really isn't much limit to what people are willing to pay if they have to get work done on the plane"

Gogo has to design much of its hardware. "The scale is low," Small says. "There are only 40,000 planes in the whole world." That means there isn't a constellation of Lucents and Huaweis churning out new and improved airborne wireless equipment. "There is nothing off-the-shelf. Everything is custom," says Anand Chari, Gogo's chief technology officer. "People have made either hundreds, or at most a few thousand, of those, and that's it."

Gogo can provide a plane with as much as 10 megabits per second of connectivity, which is about half the average download speed on Verizon's 4G network. Only one-third of Gogo-equipped planes, however, have the hardware to reach even that speed. The rest top out at 3 Mbps. And the signal is shared among all the passengers, so the more people using it, the more bogged down the service gets.

To balance this demand-speed tradeoff, the company has focused on what consultants and B-school professors call price optimization. From its Chicago headquarters, Gogo is constantly analyzing usage–how many passengers are logged on and how much data they're consuming–to come up with dynamic pricing that acts as a kind of capacity regulator. For example, Gogo charges more on a flight from New York to San Francisco (typically about $33) than it does on a flight from Detroit to Miami ($10). JFK-SFO is full of business travelers who want to be connected much more than passengers on the other flight, who are probably on their way to the beach and just want their kids to shut up and watch a movie. Prices also differ depending on the day of the week–Mondays and Thursdays cost more: Fly from New York to San Francisco on those days, and it will cost you $40 (you can save money on Saturdays, when the price drops to $28).

The practice is like the surge pricing used by Uber. It may make perfect logical sense–varying the price of a scarce resource according to demand–but it hardly wins the hearts and minds of noneconomists. More to the point, people who use Uber usually have options: a yellow taxi, the subway, walking. If you're on a Delta or American flight, it's Gogo or no go. "The airlines have plenty of choices," says Andrew De Gasperi, an analyst at Macquarie Group. "It's just that the passenger, who is the one who uses it, does not."

Gogo differs from Uber in another way. While the taxi app's surge prices tamp down demand, thus preventing the





Left: a snapshot of Gogo-equipped flights

A Gogo network transmission tower in Nevada

service from becoming overloaded, they also encourage idle drivers to hit the streets and increase capacity. When Gogo charges more, capacity doesn't improve. "They're participating in something we like to call 'incremental value capture' without also offering a better service," says Frances Frei, a professor at Harvard Business School. "If I'm going to raise your rates, I also have to give you a better value proposition."

Gogo has gotten away with these pricing games, because its main demographic, business travelers, are so price-insensitive. For them, staying connected is a necessity, not a luxury, and they tend to be on expense accounts, so it's someone else's dime. Also, these passengers are usually not bandwidth hogs. "The business traveler is working on a PowerPoint or a spreadsheet locally and sending e-mails," says analyst Tim Farrar of TMF Associates, a consulting and research firm that focuses on mobile data services. "He's not using it as intensively as a leisure traveler who wants to surf the Internet."

Only 7 percent of passengers on an average flight use Gogo, according to the company. That's still too many if you're a user with a corporate American Express card and some Google Docs to work on. In a perverse logic, these customers would actually be better served if Gogo cost *more*, driving out the teenagers in Row 37 posting selfies on Instagram.

Earlier this year the company raised the price of its all-airline monthly pass from $45 to $60. Many customers complained, but so far it's working. In Gogo's latest quarterly financial filing, average revenue per aircraft was up 13 percent from 2014, "driven primarily by connectivity service price increases," the report said. Farrar says: "They've found that there really isn't much limit to what people are willing to pay if they have to get work done on the plane."

While Gogo manages demand, it's working on supply, too. Toward the end of this year, the company plans to roll out its 2Ku satellite-based service. The network will reach about 70 Mbps per plane at the outset and possibly be as fast as 100 Mbps in the near future. It will also be available over oceans and wherever else Gogo can't put towers, which means the company will be able to go after intercontinental routes.

Gogo's two main competitors, ViaSat and GEE, use satellites exclusively for customers such as JetBlue and Southwest. Both services have faster connections and lower prices, yet neither has dented Gogo's dominance. That's mainly because Gogo did a good job early on of locking up airlines into decade-long contracts. Gogo will install and maintain the equipment across a fleet for 10 years and share the Wi-Fi fees with the airline. As soon as the contracts are signed, hardware lock-in takes hold. Gogo (and ViaSat and GEE) equipment is proprietary, so switching providers means switching servers and antennas and everything else. "Once something is installed on the plane, it's very hard to change it out," Macquarie's De Gasperi says. "For someone to install something and then decide a few years down the line, 'You know what? I don't really like it anymore,' that would involve probably days or a week of that aircraft not flying. Aircraft lose money when they're on the ground."

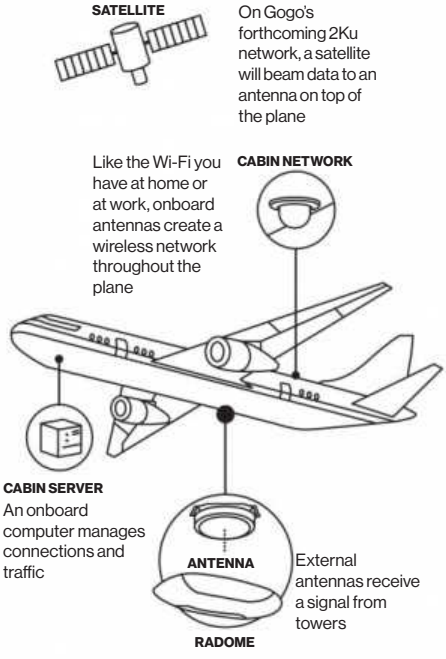
ViaSat and GEE haven't only been different from Gogo technologically but also in how they sell their services. Gogo charges passengers directly and then cuts a check to the airline for about 20 percent of that revenue. With ViaSat and GEE, the airline writes them a check for their service, the same way it may pay a caterer for food or a fuel company for tanker trucks of Jet A. Once the in-flight Internet is up and running, it's the airline's decision what to charge, if anything.

ViaSat CEO Mark Dankberg thinks the best way to sidestep customer rage is to eliminate the transaction altogether. The company's basic service, which is capable of streaming video, is free for JetBlue customers—the fee's already been baked into the fare (for heavier uses, a premium tier is available for $9 an hour). For Dankberg, the key isn't dickering with prices, but eliminating the friction required for customers to get online. "It almost doesn't matter what you charge," he says. "Just people having to use their credit card is what the big issue is." He's proud to point out that more than 40 percent of JetBlue passengers use his service, compared with Gogo's single-digit take rate.

What it comes down to is whether an airline views Wi-Fi as a source of revenue or as a perk. It's not a purely philosophical choice. "I think there are some airlines that can't afford to invest significant amounts, and therefore they like getting a check every month from Gogo," Farrar says. "Remember," he adds, "this is an industry that can't afford to give too many bags of peanuts away or full cans of Coke."

Contracts may be long-term and the hardware locked in, but as the wise man once said, nothing is forever in in-flight connectivity. ViaSat just signed a 10-aircraft deal with Virgin America for Hawaii flights. And there's the all-too-imaginable scenario of some other technology coming along and upending Gogo and the rest of the industry. "If you truly believe your position in the market is impenetrable, then treat your customers like s--- and gouge them," Harvard's Frei says. "But I've seen very few organizations that get away with customers hating them." B

How It (Sometimes) Works



Data Speeds

NETWORKS SHARED AMONG PASSENGERS	
Gogo first generation	3 Mbps
Gogo second generation	10 Mbps
Global Eagle Entertainment	Up to 12 Mbps
Gogo's new satellite service	Up to 70 Mbps
NO SHARING (YOU GET IT ALL)	
ViaSat	12 Mbps

Prices May Vary

JFK → SFO
10¢ per minute

DTW → MIA
6¢ per minute

Prices are based on Gogo's most expensive flight and one of its least expensive. Rate is determined by total fee divided by total flight time. The average Gogo fee per session is $12.



FROM LEFT: PHOTOGRAPH BY MATTHEW AVIGNONE FOR BLOOMBERG BUSINESSWEEK; COURTESY GOGO; ILLUSTRATIONS BY 731



FIRES ARE RAG

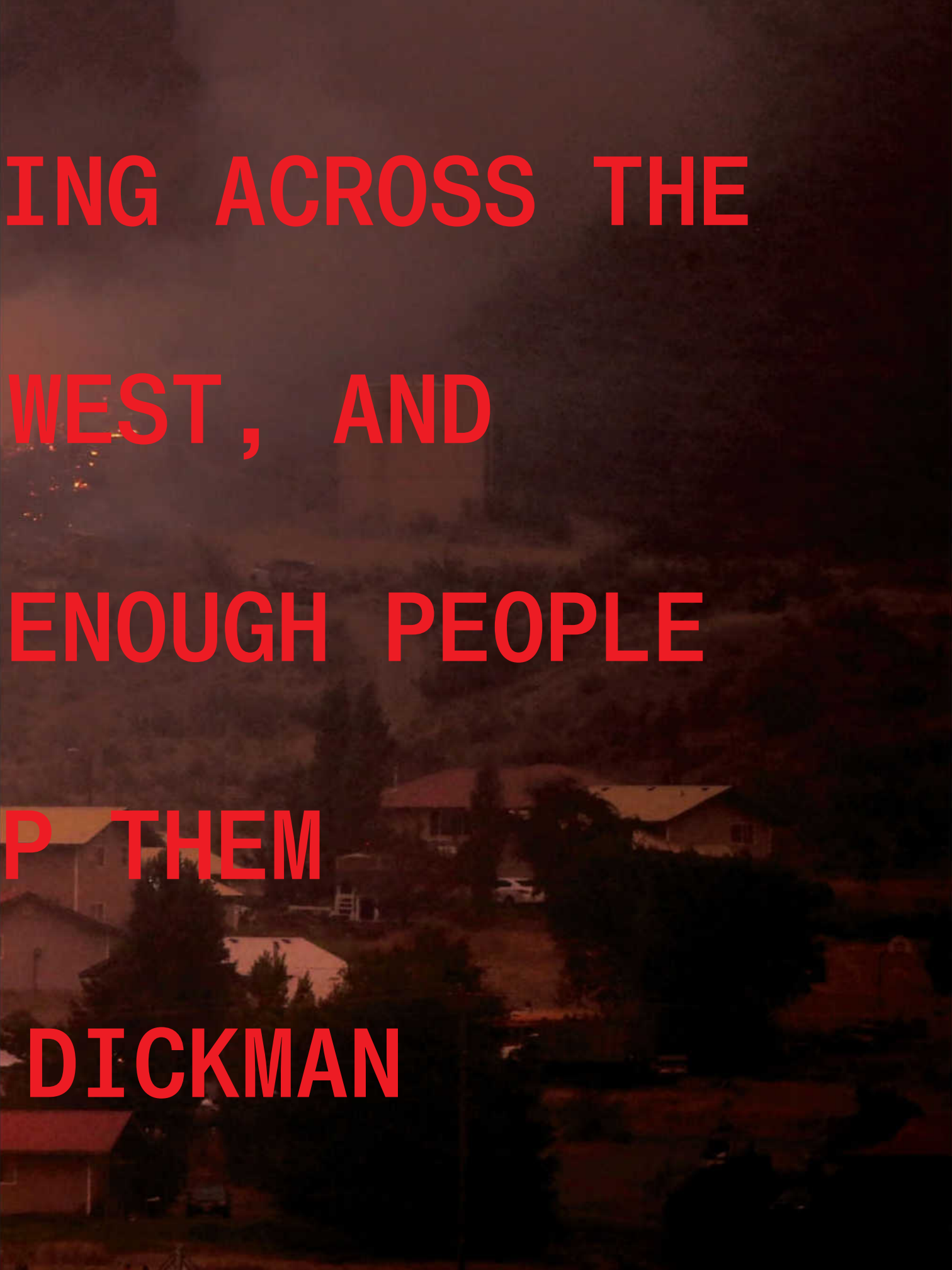
AMERICAN

THERE AREN'T

TO STO

BY KYLE

THE VIEW FROM U.S. ROUTE 97 IN WASHINGTON ON AUG. 20


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WEST, AND
ENOUGH PEOPLE
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"THIS THING'S GOING TO BURN UNTIL THE SNOW FLIES," Joe Flores, a Forest Service firefighter from Vernal, Utah, says to his partner, Todd Gregory, as they race ahead of yet another out-of-control wildfire. Flores, who's fought fires for 21 years and is an expert on fire behavior, has never seen anything like this year, with so many superhot, superfast fires burning at once. He's riding shotgun in Gregory's pickup on U.S. Route 97, and they're speeding along the Columbia River, trying to reach homes outside Chelan (population 4,000), a tourist and farm village four hours east of Seattle, before one head of the sprawling Reach Fire does. The two can only do so much to protect homes without an engine or a full crew, but they can try to make sure everybody has evacuated.

Embers lifted on 40-mile-per-hour gusts of wind clear the mile-wide Columbia and ignite parched grass on the opposite shore. There, beneath Wells Dam, the fire climbs the bank and lights another 8 square miles of dry grasslands. A second head of flame continues a run northwest toward the Cascade Mountains.

Gregory pulls up to a ranch house tucked in an orchard. There's a well-watered lawn out front and a small wood shed next to it that's already burning. A wave of 6-foot flames is advancing at about 7 miles per hour from Chelan and toward Pateros, a 600-person town that lost 300 homes to wildfire last year. Engine running, Flores gets out of the truck just as a tank explodes in the garage. A bolt of flame vents above the roof. The smell of sulfur wafts over them.

"We got to get out of here. I've no idea what we're breathing in," Gregory says. A panicked Labrador-mix rushes out from behind the garage and leaps on Flores.

"Do you mind?" Flores asks. Gregory shoots him a look: Dude, what kind of question is that?

Flores lifts the Lab into the truck's cab. With flames now working through the garage roof, they pull out and head back to fire camp, a sprawling tent city that's sprung up to house firefighters on break from the fire lines. Although the house survives, the garage is toast, one of 38 structures incinerated in the Chelan area over the next 10 hours. A fruit storage warehouse will get reduced to neat squares of ash and charcoal. Fresh apples in crates melt into globs of sticky black sludge. Parked cars become metal skeletons. Some 1,600 residents, who began the morning believing they were protected by almost 1,000 firefighters, leave in a hurry. Some escape through areas that have already burned, passing smoking telephone poles and downed power lines whipping the ground.

When Flores gets back to fire camp, he delivers the dog to a public information officer, who posts photos of the missing animal on Facebook. He brings the Lab into his tent that night to calm its nerves. The Lab's anxiety is short-lived. At 4 a.m. it wakes the officer ready to play, and by that afternoon, the owner has responded and they are all but cartwheeling around each other in the parking lot. "It's so cliché," Flores says, laughing. "A fireman saving a pet."

The Reach is one of five large fires within an hour's drive of Chelan, and as of Tuesday, Aug. 25, it has spread across 90,000 acres. Fifty miles north, outside the 500-person town of Twisp, on Aug. 19, three are dead. "This is like the Big Burn all over again," Flores says. In 1910, the Big Burn killed 78 people, blackened 3 million acres in Idaho and Montana, and started a century of aggressive fire suppression that, in many ways, led directly to the summer of 2015, which may well go down as the most destructive fire season in history.

In Washington state, fire covers nearly 500 square miles, and smoke is in the air as far east as Chicago. On Aug. 19, Washington Governor Jay Inslee asked for a federal disaster declaration, which he got two days later. There are so many blazes all across the Western U.S. that there aren't enough firefighters to fight them. The National Guard has been called up, as have active-duty soldiers trained in 24 hours for the fire line. Canada has sent firefighters to help. So have Australia and New Zealand, and still there aren't enough. An unprecedented 32,000 men and women are struggling to control the flames, yet it's possible to walk for miles over burning ridges and down smoke-choked drainages without seeing a single firefighter. "Fire activity is off the charts," says Shawna Legarza, the Forest Service's fire director for California. As bad as Washington state is, California has been burning since early July, and there are 42 large fires active now. By mid-August, fires have consumed 7.2 million acres nationwide, mostly in Alaska.

Accounting for insurance costs, damages to businesses and infrastructure, and the flash floods and mudslides caused by denuded slopes, this year's fires will likely cost taxpayers $25 billion–and that's if a whole town or city doesn't burn, which is a distinct possibility. If that happens, according to a report by the Natural Resources Defense Council, the costs could double or triple: One hundred forty million Americans live in fire-prone regions, and $237 billion in property sits in those high-risk areas.

The Forest Service, the country's largest wildland firefighting agency, has spent $800 million trying to control the flames this year, and it's only August. As such, 2015 is on track to become the 15th year in a row the agency has laid out roughly $1 billion on firefighting alone. Expenses in some areas are equal to or greater than the value of the threatened property–$200,000 to $400,000 per home, according to Bozeman (Mont.)-based Headwaters Economics. Yet the Forest Service doesn't have much choice: It can't just let communities burn. So the service and its partner agencies keep putting out the flames, even though years of study have shown that doing so only leads to even hotter, more devastating fires later.

"If you always do what you've always done, you'll always get what you've always got," says Tom Harbour, who, as the chief of the Forest Service's fire department, sets the agenda for dozens of other federal, state, county, and municipal agencies and is effectively America's wildland fire chief. "One hundred million people



HARBOUR VISITS A FIRE TEAM IN CALIFORNIA



A SMOKEJUMPER CHECKS HIS GEAR IN REDDING

WRECKAGE NORTHWEST OF OMAK, WASH.



in the West can no longer expect to just pick up the phone, dial 911, and have a Hotshot come and save them.”

THE FOREST SERVICE’S WASHINGTON HEADQUARTERS DOESN’T look like it belongs on the National Mall. A red-brick building with towers and flutes, it appears like somebody lifted it from Harvard’s campus and planted it between the Holocaust Memorial Museum and the Washington Monument. Harbour’s office is on the third floor, in a cubicle farm. A typical week in summer finds him traveling to offer his condolences to the family of a fallen Forest Service firefighter; on the Hill discussing a $50 million lawsuit over a prescribed fire that scorched private land; and sorting out the legality of his firefighters driving their work vehicles home after a long shift.

“I keep two quarters on my desk for the most frustrating days. One is to give to people to ‘call someone who cares,’ ” says Harbour, smiling. The other is a reminder he’s saved enough to retire. “So you can take this job and shove it, ’cause I ain’t working here no more.” He admits to getting fed up sometimes. “Part of me says, ‘Goddang, things move slow.’ And part of me says, ‘Be patient, ’cause society has all kinds of other issues banging on its door.’ ”

Harbour, 64, is a short man with a graying mustache, square glasses, and a narrow face, with a pink spot from a recent bout with melanoma under one eye. He resembles Rick Moranis more than the broad-chested stereotype of a firefighter. Born into a military family, he went to college at the University of California at Davis, where he studied chemical engineering. He came to firefighting after quitting a summer job cleaning the kennels of 3,000 beagles. “Fecal removal specialist was my title,” he says. “Skills I still use today.” Since then, he’s been the chief of a helicopter fire crew, worked in varying command capacities in six different National Forests, received a master’s in forestry, and fought fires in Greece and Indonesia. After 45 years in the Forest Service, he most likes to talk about the years before he moved to D.C. in 2001.

While he was working in Arizona’s Apache National Forest during the 1970s, three fires popped up and burned 100 acres, each in one hot summer day. “Folks were atwitter” about the destruction, Harbour says. Forty years later, in 2011, the Wallow Fire tore across 500,000 acres of the Apache National Forest in a month. “I’ve seen in my career, in the same location, the difference between three fires of a hundred acres and one fire of a half a million acres,” he says. In other words, fires keep getting worse.

In 1995, the Forest Service spent 16 percent of its budget fighting fires. Today, it’s 52 percent and rising. The agency’s $5 billion budget hasn’t grown, just the portion of it spent on fire management, which includes timber operations to thin forests. “You’re no longer the Forest Service,” his boss, Agriculture Secretary Tom Vilsack, has told him. “You’re a fire department.”

One recent morning, Harbour’s meeting with a congresswoman runs long, and he’s almost three hours late to a call with the smokejumping command staff in Missoula, Mont. When he shows up, his staff ushers him into a conference room. All the rooms are named after plants or animals. This one is Wolf. They’re discussing more traditional round vs. newer square parachutes for smokejumpers, the 360 elite firefighters who leap from airplanes into wildfires to snuff them in the cradle.

Harbour’s troops have long been considered the world’s best at controlling wilderness blazes, but their focus has recently changed to battling fires in or near towns—90 percent of Forest Service fire spending now goes toward protecting houses—so Harbour contends that square parachutes will give his aerial specialists better precision and safety when it comes to landing near buildings. But not all the smokejumpers are buying it. “Change, no matter what kind it is, is emotional and political,” says Josh Mathieson, a smokejumping base manager in California who will have to implement Harbour’s plan.

The call runs nearly an hour. Harbour spends most of the time listening. He stands and paces. He sits with his face in his hands and then his hands on the desk. He slowly rolls his pen over his fingers. For Harbour, the parachute decision is a particularly close one. In 2011 his son, a Forest Service smokejumper, crash-landed in New Mexico’s vast Gila Wilderness because he

PREVIOUS SPREAD AND TOP: BETTINA HANSEN/THE SEATTLE TIMES; OPPOSITE PAGE: PHOTOGRAPHS BY KEVIN COOLEY FOR BLOOMBERG BUSINESSWEEK

HOLDING A LINE NEAR HAYFORK, CALIF.



was unable to steer his chute into a better landing zone. He fractured his pelvis, a femur, and an ankle and busted up his knee. When he healed months later, he insisted on returning to work, and when he did, he strapped back into the same type of parachute he'd been injured in. While Harbour rationalizes his choices to the smokejumpers over the phone, his son is fighting fires in Alaska, where more than 5 million acres of timber have burned—the second-largest fire season in Alaska history.

"They disagree with me, and that's fine," Harbour says, tapping the table with his pen. "But it's not their friggin' decision. It's mine."

When the call ends, the room empties, and Harbour sighs. He puts his feet up on the table.

"You'll think I'm crazy," he says. "But these new chutes are going to allow jumpers to attack fires close to towns and infrastructure. That's what we need to fight the fires of the future."

IN THE LOWER 48, FIRE SEASON BEGAN IN EARNEST THE last week of July, when thunderstorms sent almost 2,300 lightning strikes into the drought-parched forests and foothills of Northern California. Two days later, smoke was rising from 250 new wildfires, Governor Jerry Brown called a state of emergency, and almost 10,000 firefighters from at least a dozen different fire agencies poured into Northern California. On Aug. 3, Harbour joined them.

To contend with California's regular fires, the Forest Service set up two command centers, with one, in Redding, called North Ops. Redding sits in a bowl in the Sacramento Valley, and as Harbour arrives, the wind is filling that bowl with eye-stinging smoke. On the grounds, a long-haired smokejumper in flip-flops pedals a cruiser bike around the base while air tankers loaded with fire retardant take off from the runway. The mood isn't festive, but one feels the excitement and gravity of a shared sense of purpose. The command staff hustle about to send firefighters and gear to the front lines. Several stop to shake Harbour's hand. He joins a briefing headed by Paige Boyer, the assistant director for fire and aviation management for Northern California.

"We really want to get that fire off the map," Boyer says to a half-dozen of her colleagues gathered before a map. "We want it out of the public eye." Boyer taps the northeast corner of the map, where red colors the fire where a firefighter died.

Three days earlier, Harbour had flown to Alturas, Calif., to pay his respects to the family of that engine captain, 38-year-old Dave Ruhl. He'd disappeared while scouting a fire near the city limits. His crew didn't find his body right away, and while CNN and the Associated Press zeroed in on the details of the first fire death of the 2015 season, Harbour arranged to meet his folks, as he's tried to do for each of the 163 firefighters—both Forest Service and non—lost on duty in the past 10 years.

Boyer goes on to list dozens of other active fires that have her concerned. Some are on Forest Service land, others on Bureau of Land Management, state, county, and private property. The Forest Service tracks them all. Harbour takes note of the three major highways closed, the fire surrounding a timber town with only one way in and one way out, three small towns evacuated, a threatened gas pipe. Meanwhile, the Forest Service is having trouble getting enough Jet A fuel for 51 helicopters and airplanes servicing Northern California fires.

Harbour asks Boyer about the weather for the next eight weeks. Unless some season-ending event comes along—a hurricane out of Baja, say—Northern California will keep him busy until Halloween. "But Paige promises me it's going to rain," he says. "Right, Paige?"

FIREFIGHTERS HAVE AN OLD SAYING THAT THREE THINGS drive cost and risk: wood, weather, and homes. While fire suppression and drought have left the woods and weather in dangerous condition, it's the homes that make fires so expensive to fight. With bridges, gas lines, power poles, and millions living in fire-prone places, such as Downieville, Calif. (population 282), Sisters, Ore. (2,174), and Denver (649,495), the complexity is mind-boggling.

Take, for example, the 2012 Waldo Canyon Fire outside Colorado Springs. Only two of the city's residents were killed, but chaos reigned. In a matter of 12 hours, a strong wind pushed the fire straight down the backside of the Colorado Front Range and

through 300 homes. When one house ignited, the sparks leapt to the next, and the wildfire became an urban conflagration, evoking the Great Chicago Fire, which burned 3.3 square miles of the city in 1871.

"What's going to happen 40 years from now?" Harbour asks. Wildfires regularly burn six times the acreage that they did when Harbour started out in 1975. They now threaten entire towns, even cities. "Is that relationship linear or logarithmic? It can't be logarithmic, 'cause there ain't enough goddang timber to burn."

Some studies predict that by 2050 fires will burn twice what they do today. There's no mystery as to why. While the role of flames varied greatly among ecosystems, until about 1910 fires shaped most of the 193 million acres of forests that the Forest Service manages across 40 states. The lodgepole pine forests of Idaho and Montana and chaparral thickets of Southern California burned infrequently with great intensity. The ponderosa pines of New Mexico and Northern California burned regularly with low intensity. But when the Forest Service took control of the land around 1910, its firefighters reacted to all fires the same way: They put them out as quickly as possible. Without flames, forests once regularly thinned by fires grew thick. In many stands in the California foothills there are now 1,000 trees per acre where a century ago there were just 150.

Today, temperatures in the West average 2.1 degrees Fahrenheit warmer than in 1895, when record keeping started. They're forecast to increase an additional 4 to 6 degrees by 2100. "Think of the warming atmosphere and moisture in the forest as a puddle of water on asphalt," says Park Williams, a climatologist at Columbia University. "The warmer it is, the faster the puddle evaporates."

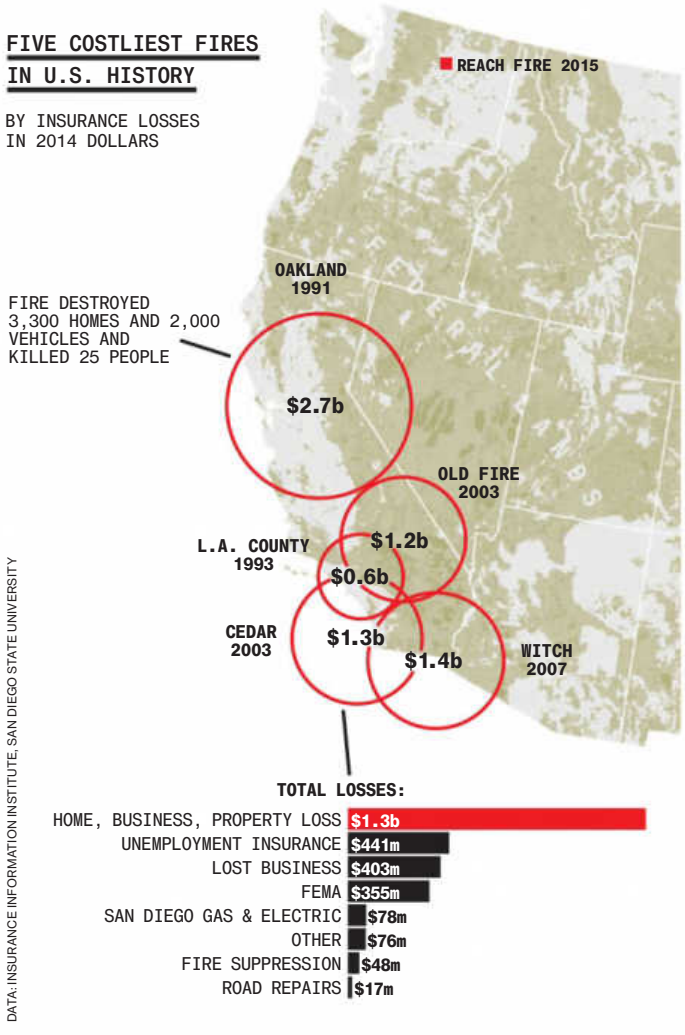
Hotter temperatures make dense forests drier, and the fires more extreme. In California, a 1-degree temperature increase is associated with 35 percent more acres burned; in Montana, it's twice the acreage. The conditions generate megafires, blazes far too intense for firefighters to safely stop. Arizona's 2011 Wallow Fire was a megafire, and so were California's 2013 Rim Fire, which burned 250,000 acres, and New Mexico's 2011 Las Conchas. That biblical firestorm blackened 1.4 acres of mature forests every second for 14 hours straight.

Current fire policy, adopted in 2000, is actually sound, Harbour says. It allows incident commanders to make nuanced decisions about which fires, or even sections of fires, to fight and which fires to let burn; it encourages prescribed burning; and it allocates millions of dollars to thin dangerously dense forests around communities. But the policy is hard to practice, which is why, on the ground, it still looks like 1910 out there.

"Solving this is going to take engagement on personal, private, county, state, and federal levels," Harbour says. His focus is his own agency, and he's trying to change its culture. He calls it doctrine. Along with educating the politicians who set his budget, he's trying to teach his firefighters—men and women who love to fight fires and are recognized as heroes when they do—that to win means having to fight fires less often. Prevention, not suppression. "Doctrine, properly understood, changes behavior," he says, and recites a stanza of the nearly revised firefighting manual that sounds like it was written by a consultant. "Safely meeting reasonable objectives with minimum firefighter exposure while enhancing stakeholder support for our management activities."

People need to be realistic about what firefighters can do, he says. Firefighters also need to be realistic about what they can accomplish. "I hope very much that we will be smart enough as a nation to realize the societal and ecological time bomb we're sitting on," he says. "Change or we die."

JOE FLORES HOLDS A PALM UP TO A STEADY BREEZE coming out of the west ridgetop. He's trying to estimate wind speed and figure out if these gusts are the forecasted storm or just a prelude. It's the storm: Over the course of the next few hours, the storm's wind will keep his ridge clear but fan 24 large fires in Washington and Oregon. Up and down the east side of the Cascades, columns of flame, some miles wide at their base, blow smoke 15,000 feet in the atmosphere, where the wind shears it into a hard right angle and carries it east to the Great Lakes. As Flores had worried, it is the Big Burn all over again.



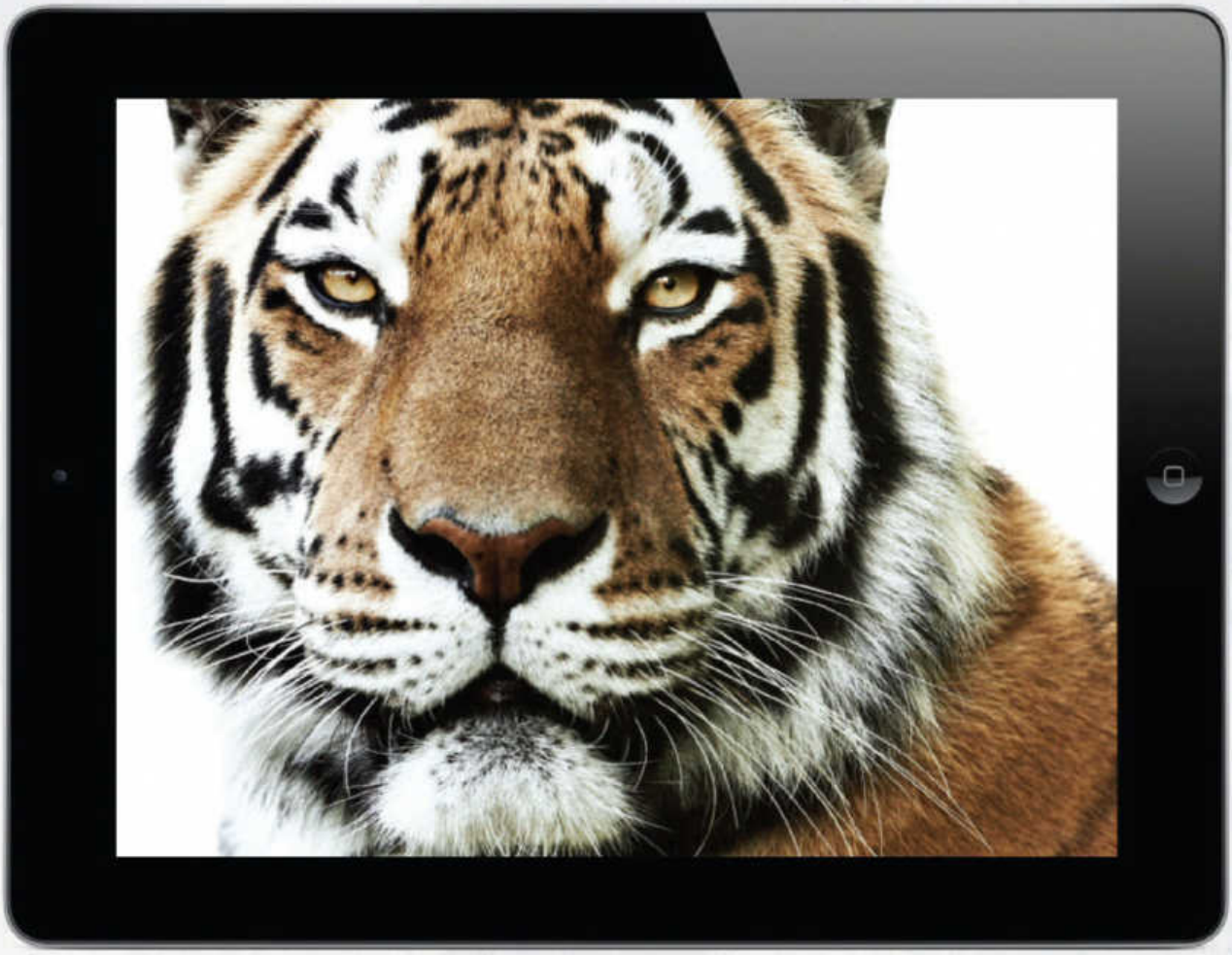
Throughout the night, winds funnel through river canyons, and western Washington glows that beautiful, terrifying orange of fire season. Tonight, it's only haunting. Over the radio, the emergency warning system interrupts every third country music tune, and with a slight lisp, an announcer reads off the latest evacuation orders. "Do not wait for door-to-door notifications," he cautions. "Evacuate immediately."

The communities of Riverside and Omak Flats empty. In Twisp, Winthrop, and Conconully, thousands of people, their lives packed hastily into cars, flee too, just as they did last year.

Back in fire camp by the Columbia, Flores is hunched over a computer, calculating how the wind affected the fires throughout the afternoon, when he hears a tragedy: four firefighters burned, the town of Twisp in jeopardy. When Harbour gets the news, the fire chief will feel as he always does—devastated and, somehow, personally responsible.

At around 4 o'clock, an incident commander pulls Flores and the rest into a large, central yurt. Three of their own have died, they're told, and a fourth was badly burned, while trying to protect Twisp, which remains standing. There's a moment of silence, and some tears, and then everybody collects themselves and returns to fighting fire. B

PHOTOGRAPH BY KEVIN COOLEY FOR BLOOMBERG BUSINESSWEEK



PLEASE TOUCH



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WWF



FALL CLASSICS

All the trends designers are pushing this fall add up to one idea: Stop following trends. Instead, try these 10 dead-easy ways to replenish your workday wardrobe

2015

Photography by
Will Anderson

Market editor
Shibon Kennedy

We live in a world without dress codes. Unless you're a peer-pressured banker in a navy suit or a germaphobic doctor in scrubs, you can probably wear whatever you like to work. Express yourself, or don't–in either case, you'll want things that last. Elevated basics, in other words. Wear them this year, at this job, and for many more to come.

The Great White Shirt

You probably have one. Or 10. That's why labels are upgrading theirs, creating new basics that play into an easy, minimalist way of getting dressed. For women, silk elevates the style—even better if it ties at the neck. Men: Go for nubby oxford cloth. The cowboy-like details seen here work better in a corporate office than, say, on a ranch.

Women's

Tory Burch silk tie blouse *$295; toryburch.com*
Courtshop pam skirt *$148; courtshop.com*
Jennifer Fisher brass small braid cuff *$430; jenniferfisher jewelry.com*

Men's

Tod's cotton button-down shirt *$495; tods.com*
Brunello Cucinelli unlined lightweight denim jacket *$1,215; brunello cucinelli.com*
Alex Mill cashmere marled beanie *$105; alex-mill.com*

Like repp ties and strong shoulders in previous eras, denim is now de rigueur at the office. The hot fall hue isn't dark or light, but medium. It's more versatile for jeans, a jacket, or this fresh take on a pencil skirt.

Tailor the Look

We can't pretend to know your office style. (Or maybe you work at home.) So, throughout, some other options that might better fit your life or budget.

Casual

A banded collar is the easiest way to update your normal shirt.

Joseph Carly silk-chiffon blouse *$415; net-a-porter.com*

Women's



Lands' End garment dye banded-collar shirt *$21.99; landsend.com*

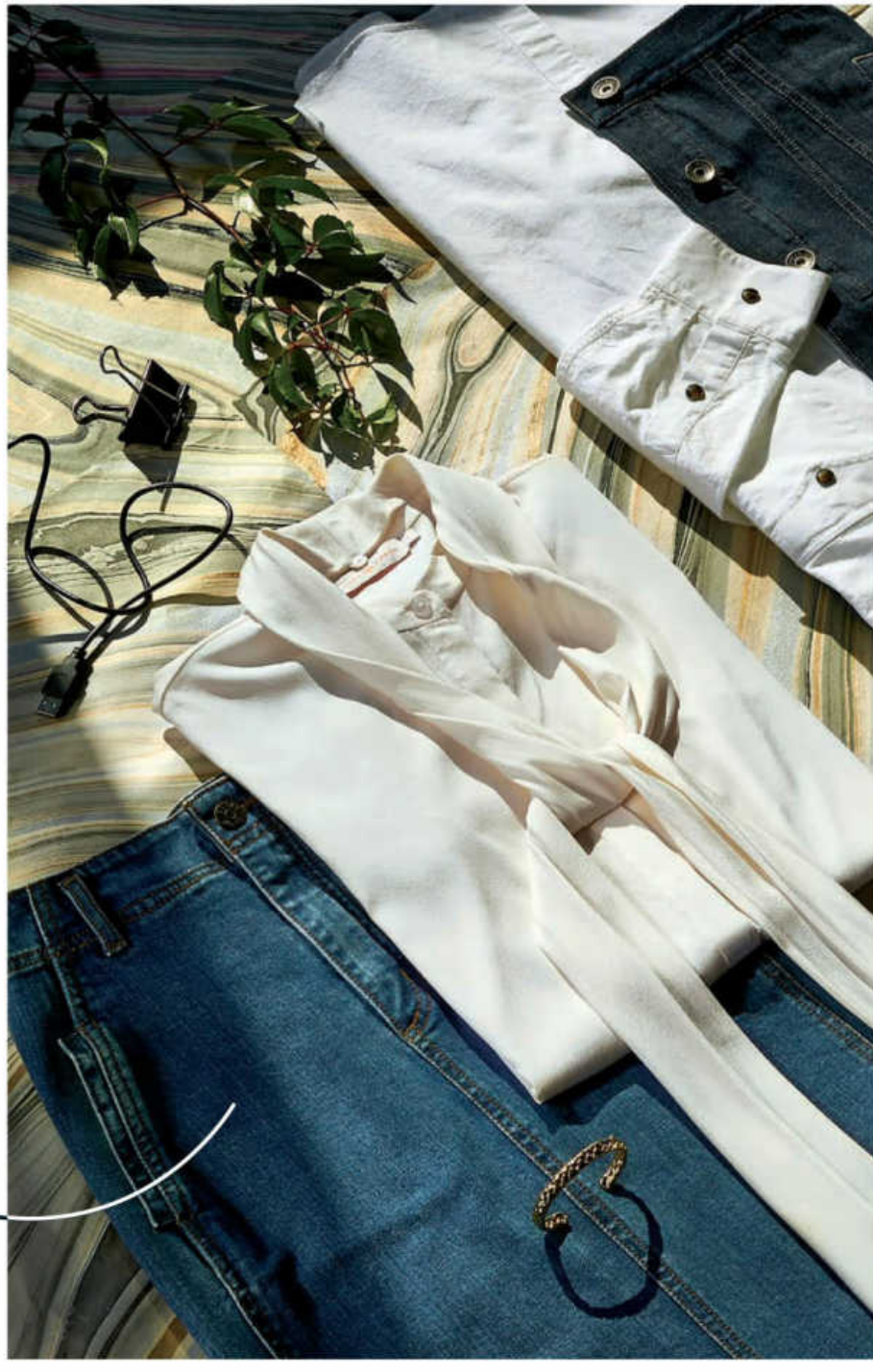
Men's

Dre

Pleats would look smart under a blazer.



Michael Kors pleated silk blouse *$225; net-a-porter.com*



PROP STYLIST: DAVE BRYANT; SOFT GOODS STYLIST: ELIZABETH OSBORNE

Previous page: **Banana Republic gray boyfriend blazer** *$150; bananarepublic.com*; **Ann Taylor diamond skinny scarf** *$49.50; anntaylor.com*

ssier

Save a blouse with volume for parties or work events.

Formal

Collar pin: for the daring.



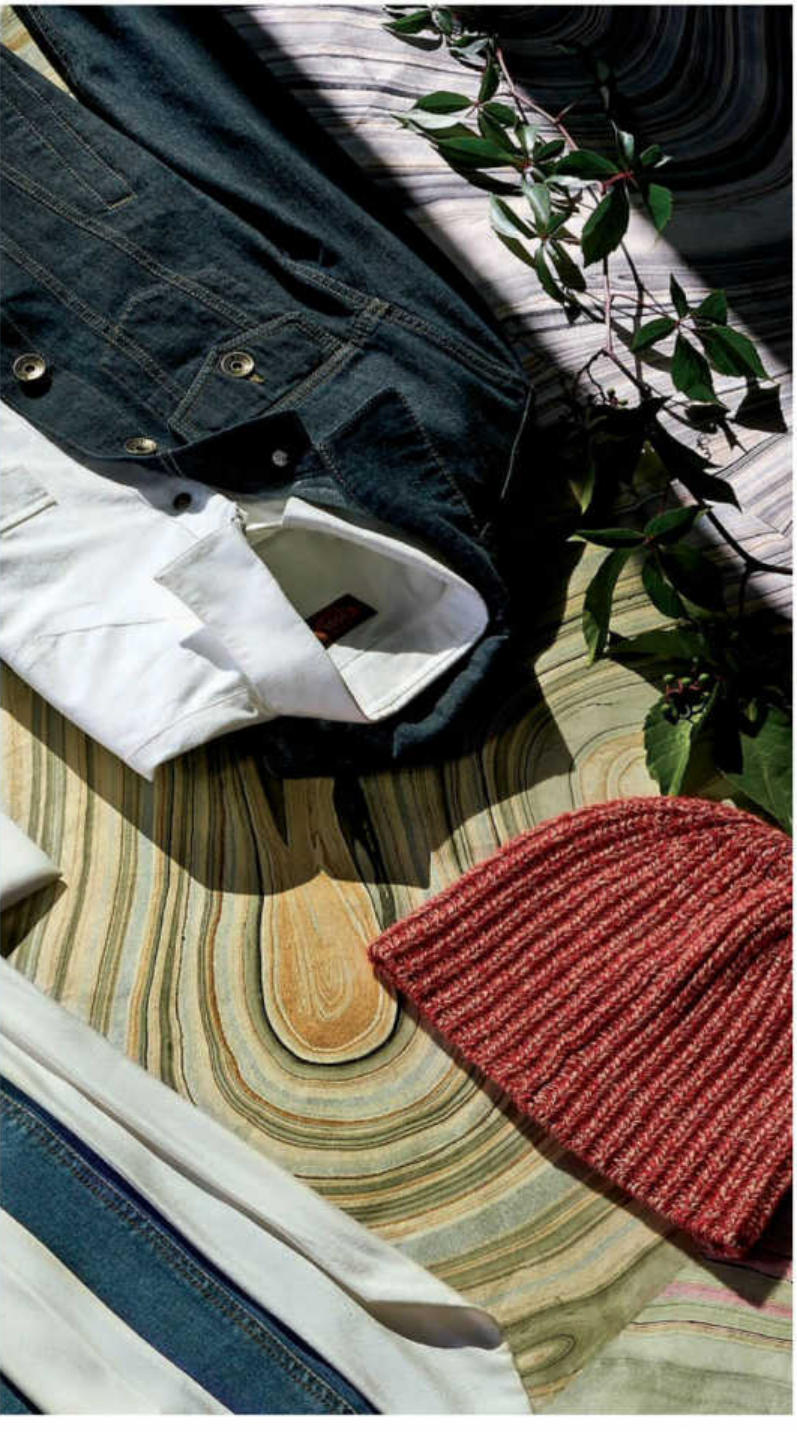
Zara Mao collar shirt
$35.90; zara.com



Alexander McQueen silk crepe de chine blouse
$1,565; net-a-porter.com



Brioni white cotton shirt
$725; mrporter.com





The Grown-Up Pleated Skirt

Salvatore Ferragamo tweed-and-silk pleated skirt *$3,750; salvatoreferragamo.com*
Paul Smith camel sweater *$830; paulsmith.co.uk*
The Row hunting bag *$3,800; therow.com*

Modern versions of the prep school perennial showed on the runways of Paris and Milan before trickling down to fast-fashion retailers. Almost all employ sophisticated tweed, leather, or at least luxe-seeming materials. Some have silk or tulle between the pleats to add volume, and most aren't too short for work. Keep the rest of the look modest—a neutral cashmere crewneck works, along with this fall's streamlined shoulder bag.





This women's sweater, hand-knit in Italy, exemplifies the preppy staple's new mood: It's striking, but not so brash it doesn't go with all your pants. Knits that have interesting cuts, cool dye techniques, or fun embellishments achieve that balance, or just go for giant links like those above.

Orley chain-stitch hand-knit sweater
$1,795; barneys.com

The Novel Cable Knit



Thom Browne cable-knit striped sweater
$802.07; farfetch.com



Sea ombre knit sweater
$495; modaoperandi.com



Preen Line Ginny cable-knit wool sweater
$612; matchesfashion.com



Turtlenecks are still riding high. Wear with slim pants.



Carven blue cable turtleneck sweater
$647; shop .harpersbazaar.com

Great texture, though layer a shirt beneath.

T by Alexander Wang honeycomb cable jumper
$650; harrods.com



Abercrombie & Fitch cable-knit V-neck sweater
$48; abercrombie.com



Etoile Isabel Marant Nilsen cable-knit sweater
$305; stevenalan.com

The easiest update is a fisherman's crew in a punchy shade.



L.L. Bean Double L cotton sweater
$44.95; llbean.com



Lands' End colorblock Aran cable sweater
$69.99; landsend.com



Givenchy striped-sleeve sweater
$825; farfetch.com

A single cable runs down the middle.



Valentino wool-and-cashmere-blend sweater
$1,350; mrporter.com



H&M cable-knit sweater
$39.95; hm.com



Stephan Schneider G2 cardigan
$328; stevenalan.com

Try a cardigan buttoned over a plain tee.



Brooks Brothers half-cable crewneck sweater
$108; brooksbrothers.com



J.Crew cable cotton sweater
$108; jcrew.com



The subtle basket weave is a more restrained choice.

Gant basket-weave sweater
$175; gant.com

How bold do you wanna go?

Women's

Men's





Saint Laurent cigar suede jodhpur boots
$1,095; ysl.com



Nicholas Kirkwood black Carnaby ankle boots
$1,195; nicholas kirkwood.com



R.M. Williams leather Chelsea boots
$490; mrporter.com

Pointy toe! Only if you're really stylish.



Tabitha Simmons shadow suede ankle boots
$795; net-a-porter.com

Wear a lot of dark denim? Go for brown, not black.



Magnanni Emmitt Chelsea boots
$375; nordstrom.com

Heel height



Loeffler Randall Carmen Chelsea boots
$450; loeffler randall.com



Cheaney leather Chelsea boots
$615; mrporter.com



Marais Beatle boots
$149; maraisusa.com



Hudson black leather Chelsea boots
$220; us.topman.com

Brogueing at the toe makes these more dressy. Pair with black jeans or tights.



Church's Ketsby wingtip Chelsea boots
$645; barneys.com

Men's

Women's

The Serious Fall Boot

Last winter's boots are salt-stained or too L.L. Bean for those days you need to impress the boss. Chelsea boots are stylish, reminiscent of British Mod rockers—and, with their elastic gusset, easy to put on while half-asleep. But any ankle boot will dress you up, so long as you get the leather or suede cleaned regularly (bimonthly, at least).

Men's

Brioni sartorial plain boots *$1,350; brioni.com*
The Tie Bar solid-texture gray socks *$8; thetiebar.com*

Women's

Aquatalia Idalah wingtip Chelsea boots *$450; aquatalia.com*
Comptoir des Cotoniers Vosges pants *$215; comptoir descotoniers.com*

Ankle boots look best with suits or trousers, in part because they hide your socks. Or, if you're a woman, try cropped pants like these to draw more attention to the slick footwear.

The Paddington Bear Coat

The British military called it a duffle, named for the rough Belgian wool it's made from. Stateside, it's commonly known as a toggle coat. But even young children will recognize the look: slightly roomy, sloped at the shoulders, often hooded, and fastened in that retro way. For a guy, it's the ideal dressed-but-not-too-dressed overcoat. Wear it daily; soon, it'll feel more comfortable than any down-feather cocoon.

Brooks Brothers duffle coat *$698; brooksbrothers.com*
Banana Republic vest *$130; bananarepublic.com*
Pal Zileri Napa leather gloves *$345; palzileri.com*

Duffles are warm, but not enough to brave the next polar vortex. The stylish solution is to layer a vest under it in a contrasting hue. Wear the vest on its own, too, until the first snowfall.



Fashiony

Raf Simons checked wool-blend duffle coat *$1,575; mrporter.com*



Kitsuné heavy wool duffle *$882; kitsune.fr*



The more technical version, for people who deal with snow and rain.

H&M duffle jacket *$69.95; hm.com*



Rugged

Gloverall has been making these since the 1950s.



Gloverall original Monty duffle coat *$305; garmentory.com*



Bonobos has more than a dozen Guideshops in cities, so you can nail the fit.

Men's | Women's

Skinny



Topman light-gray skinny-fit pants *$120; topman.com*



Theory Treeca CL pants *$285; theory.com*

Regular



Reiss Bronte T wool mélange trousers *$220; reiss.com*



Giamba gray flannel skinny boyfriend pants *$450; modaoperandi.com*

Relaxed



Bonobos Americano wool dress pants *$185; bonobos.com*



Proenza Schouler tweed wide-leg trousers *$1,206.27; proenzaschouler.com*

The Better Gray Pants

Men's

Ring jacket wool chalk-stripe trousers *(sold as a suit) $2,340; thearmoury.com*
John Lobb Philip II double-buckle shoes *$1,750; johnlobb.com*
W. Kleinberg matte alligator belt *$495; wkleinberg.com*

Women's

Boss Tanare1 pants *$575; hugoboss.com*
Chanel calfskin-satin belt *$650; chanel.com*
Christian Louboutin Requipump *$675; saks.com*

When was the last time you put on a pair of dress pants that wasn't either (a) part of a suit or (b) black? If the answer is more than a week, consider changing your routine. You won't look like a square—promise—just someone who's decided to look better. Gray's the most versatile hue. Add some texture like stripes or checks to banish the *Mad Men* (R.I.P.) vibe.



The Mandatory Plaid

Michael Bastian flannel button-down shirt *$475; michaelbastian.com*
John Elliott + Co Mercer tee *$79; johnelliottco.com*

Sure, the motif's a bit obvious for autumn, but with clothing, "obvious" is just another word for useful. The idea this season is to find a three-tone plaid with several colors forming the grid. Wear a flannel shirt over a T-shirt if your office skews more casual. Or opt for a blazer, along with a white dress shirt, if that's more your daily uniform. The level of brightness is your call, although it's best to avoid *Happy Gilmore* pants.

Contrast with bright pants or light jeans.



Subdued

Uniqlo men's wool-blended comfort jacket *$99.90; uniqlo.com*

Offset with black pants or a dark skirt.



Intense

Vivienne Westwood red tartan classic blazer *$1,530; viviennewestwood.com*

Pinstripes, chalk-stripes, and this micro-houndstooth are slimming.

The Unboring Black Dress

You know the usual one. It falls from the shoulders, nips at the waist, hits at the knees, and offers little in terms of personality or quality. Time to slip into something more interesting: The Jil Sander below stands out for its architectural seams and sheathed belt. Silky panels are a good add—or start by going for a slightly more daring silhouette.

Jil Sander wool gabardine Volano dress *$1,720* **and leather belt** *$144; jilsander.com*

Hermès Cape Cod etoupe double tour strap watch *$2,975; hermes.com*
Little Liffner gray croc bag *$499; clubmonaco.com*



Faux croc! With an under-$500 price to match. When investing in a purse this season, consider the Seventies-inspired saddlebag. It hangs comfortably across your body and isn't too big, yet it still fits the essentials.



Balenciaga wrap-skirt belted dress *$2,069; bysymphony.com*

A blazer at work will tone it down before a night out.



Dior knee-length dress *$1,126; yoox.com*

Price



French Connection Pistols cotton shirtdress *$128; usa.frenchconnection.com*



& Other Stories ribbed sleeveless dress *$85; stories.com*

Jersey makes for a form-fitting, flattering column.

Sleeveless

Sleeved

Once the domain of Sixties flight attendants, skinny-patterned scarves are back. Loop one around your neck with a blazer, or let it dangle on either side with a shirt.

The Earth-Tone



Women's

Prada jacket *$2,450* **and pants** *$940; prada.com*
Charlotte Olympia Cut It Out Odille! heels *$765; charlotteolympia.com*
Rodebjer turtles scarf *$155; rodebjer.com*
Oliver Goldsmith Casper sunglasses *$405; jamesleonard.com*

Men's

Valentino brown-and-blue lapel suit *$3,980; valentino.com*
Alexander Olch striped tie *$150; olch.com*
Ulysse Nardin classico alligator-strap watch *$15,700; ulysse-nardin.com*
A.P.C. Hector document holder *$325; apc.fr*

Brown, burgundy, pale yellow, or even burnt orange: These are the magpie shades designers high (Valentino, Prada) and low (Zara, Suitsupply) are pushing for dressed-up clothes this fall. Find one that flatters your skin tone, and wear it often. It's much more exciting than that navy suit you're sick of putting on.

Tailored Look



Western details are everywhere this season. Proceed with confidence.



Woolrich men's 1830 sport jacket
$249; woolrich.com



Freeman's Western shirt
$330; freemanssportingclub.com



Ami straight-leg corduroy trousers
$234; matches fashion.com

Men's

After years of neckwear being really skinny, heavily textured, or otherwise tricked out, a classic 3.5-inch-wide silk tie feels right. Match your suit's shade.

White blouse, heels—done.



3.1 Phillip Lim leather-and-wool skirt
$895; net-a-porter.com



Hermès Brandebourg wool cape
$5,400; hermes.com

Cropped! Unless it's a suit, one ruddy tone per outfit.



Paul Smith burnt-orange bird's-eye trousers
$345; paulsmith.co.uk

Women's



One upside of wearing simpler clothes is you can go wild with your accessories. Spring for statement earrings, lush scarves, knee-high boots, and other investment pieces.

The Furry Finish

Women's

Michael Kors barely guncheck melton wool fisher coat *$3,995; michaelkors.com*
Totême Ivréa turtleneck *$315; toteme-nyc.com*
Ann Taylor Ellen boots *$295; anntaylor.com*
Marni metal earrings *$330; marni.com*

Men's

Bally check bomber *$6,295; shopbally.com*
Armani Collezioni chambray button-down *$289; armani.com*
Club Monaco Donegal ribbed scarf *$98.50; clubmonaco.com*

Last fall brought an onslaught of bulky, if not ostentatious, coats with fur, real and faux, all over. That's given way to a quieter idea: jackets that riff on ones your grandparents might've owned, with soft cuffs, collars, or other accents in shearling, authentic animal hides, or a synthetic approximation. Opt for colorful knits or dress shirts beneath for a luxe commuting look (even if you ride the subway). And use the office coat closet—these will look sad hanging on the back of your chair.

Entirely shearling, which is cruelty-free.



Tomas Maier shearling bomber jacket
$4,950; mrporter.com

Subtle



Coach Icon leather trench
$1,595; coach.com

Inès & Maréchal beaver-fur-and-wool cape
$1,253; matchesfashion.com



Orvis Bostonian merino shearling jacket
$3,850; orvis.com

Not subtle

Can you pull off a cape? Not if you don't commit!



Men's **Women's**

What I Wear to ~~Work~~ Every Single Day

Interviews by **Arianne Cohen**

Samuel Kelley

39, real estate broker, Douglas Elliman, New York

What real estate deal are you working on?
I'm leasing an apartment to a prince of Saudi Arabia. I've known him two years, and finally we were able to do some business together.



You also have a background in clothes.
I co-founded Decades Inc. in L.A. It's men's and women's designer vintage, as well as high-end resale.

What's your work uniform?
Custom suits. Belts are Gucci or Hermès, and all shoes are Gucci. The suit is a backdrop—like an art gallery's white walls. The art is my shirt and tie and cuff links and tie pins. According to my boss, I'm the best-dressed broker in Manhattan.

Why My.Suit NY?
I can go in for five minutes and pick five or six new fabrics, and they'll messenger the suits to my office in two weeks.

Why make accessories the focus?
I think it's important to set myself apart from the crowd. I'm dealing with millions of dollars of someone else's money, and I like them to feel respected.

What's your process for getting dressed?
I usually pick it out the night before. I don't trust the cleaners with my shirts, so I iron myself.

PHOTOGRAPHS BY CHRISTOPHER LEAMAN FOR BLOOMBERG BUSINESSWEEK

What's Citizen's Mark?
A brand that helps young women project credibility. We sell blazers that instantly add gravitas. When I was a consultant in Switzerland, I found it hard to find clothes that made me look professional but not old.

What's your uniform?
A blazer and pants—they give me mobility. My look is very minimalist and clean. You shouldn't be visually distracting.

Why not more variation?
I have very few things in my closet, so there's not much to choose from.



Do you wear accessories?
I don't believe in accessorizing. Accessories are just one more thing that can fall off or get caught in something.

You're wearing a watch.
It's the one accessory I believe in. In a meeting, it's more polite to sneak a peek than to turn on your phone. And it makes you look more organized.

Is your hair part of the uniform?
Yes. I blow-dry every day. I'm an excessive hair cutter: I get it done every eight weeks, so it's always supersharp, and all I have to do is dry it.

Cynthia Salim

28, founder and chief executive officer, Citizen's Mark, New York

How Did I Get Here?



Kenneth Cole

Chief creative officer and chairman, Kenneth Cole Productions

Cole's fall fashion advice

"Women should embrace layering. The right jacket looks just as good over a sleek suit as it does over jeans and a T-shirt."



Kenneth Cole cashmere coat
$697

"I worked at women's shoe stores."



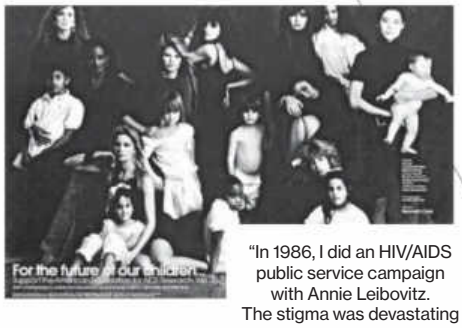
Accepting a Cutty Sark fashion award in 1985

"My father had a shoe factory in a tough part of New York called Williamsburg. I was intrigued because shoes are not just designed—there's engineering, architecture, and sculpture."

Education

John L. Miller Great Neck North High School, Great Neck, N.Y., class of 1972

Emory University, Atlanta, class of 1976



For the Future of Our Children campaign

"In 1986, I did an HIV/AIDS public service campaign with Annie Leibovitz. The stigma was devastating in those days. I did it to make what we were doing part of something bigger."

Work Experience

1970
Peanut vendor, Shea Stadium

"I was really good. The better vendors got the sections they preferred, so I got to see the Mets from any part of the stadium I chose."

1976–82
Head of design and sales, El Greco

1978–82
Head designer, sales manager, Candie's

"My father and I started going to Italy and importing inexpensive shoes out of there. Candie's became a huge trend and a very big business very quickly."

1982–2002
Chairman, chief executive officer, president, Kenneth Cole Productions

"I couldn't afford a fancy showroom, so a friend lent me a truck. The mayor's office said only a production company shooting a movie could park. So I became a production company that afternoon and filed a permit to shoot *The Birth of a Shoe Company*."

2002–06
Chairman and CEO, Kenneth Cole Productions

2010–Present
Chief creative officer and chairman, Kenneth Cole Productions

Kenneth Cole pebbled-leather sneaker
$145



"For men, sportswear and tailoring are converging. Add a casual element to a tailored look, like sneakers with a suit."



With Nelson Mandela for an AIDS campaign, 2005

"Our global sales have been quoted around $1.5 billion. The nice thing about being private is it's not really important."



With Heidi Klum at the 2015 Amfar New York Gala in February

Will be unveiling a new store concept this September in New York

"One day I woke up and decided we needed to make the business more relevant. That's difficult to do as a public company, and I realized that going private wasn't going to be that hard. So we went private in 2012."

Life Lessons

1. "The best solution is rarely the most expensive, but the most creative." **2.** "You can't define your brand the way you'd like unless it's your own environment." **3.** "It's great to be known for your shoes, but better to be known for your soul."

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Half of the Everglades has already disappeared. Now the remaining half of this fragile ecosystem is at risk from pollutants in stormwater runoff.

The problem has been decades in the making. But the millions of Florida residents, visitors and native animals relying on this watershed don't have decades to wait for a solution. So the South Florida Water Management District designed innovative stormwater treatment wetlands and Citi found a way to finance the project in weeks rather than years. Now, clean water from those wetlands is replenishing the Everglades and an incomparable global landmark is on the mend.

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